

India's first and only magazine about diabetes

MARCH-APRIL 2015

diabetic

LIVING INDIA

diabeticlivingonline.in

₹100

The truths behind
**Weight
Loss
Surgery**
EXPOSED!

COVER FOCUS
**SUPER
SALADS**
FOR SUMMER

International
**WOMEN'S DAY
SPECIAL**

Spotlight on:

Women, Diabetes
and everything in between



Diabetic Footwear

.... So stylish that it's hard to tell !



Available in Various Style
For Men & Women



USA

World Leader In Diabetic Foot Care



Sports



Women's Office Wear



Causal

Diabetic Socks



Gel Plus Insoles



ORTHOFIT®

Pioneer in

Foot, Ankle & Lower Limb Care

Contact: 101 / 105, Doctor Centre, Kemps Corner, A.K.Marg, Mumbai 400 036

Tel: +91 22 6570 1674, 022 6564 6300 • W: www.orthofit.in • E: doctor@orthofit.in



contents

VOLUME-5 | ISSUE-2 | MARCH-APRIL 2015

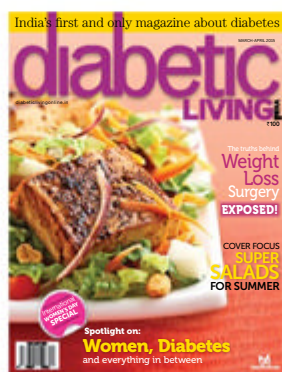
international women's day

14 Prenatal crisis: Gestational diabetes

Managing diabetes at the onset of pregnancy

18 Your heart will go on

Heart issues among women with diabetes



in every issue

- 3 Welcome
- 4 Editorial Advisory Board
- 5 Editorial Advisory Board
- 6 Letters To The Editor
- 8 Ask your Expert
- 10 Ask your Expert
- 92 Health Tarot

contents

VOLUME-5 | ISSUE-2 | MARCH-APRIL 2015



related ailments

- 20 Toll on hormones: PCOS**
Effects of PCOS on your hormones
- 24 Living on a roller coaster**
The cross section of Bipolar mood disorder

nutrition

- 31 Milk the goodness of dairy**
Benefits of low fat dairy foods

wellbeing

- 34 Adolescence against diabetes**
Diabetes among teens and its prevention

37 Braving the summer heat

Managing diabetes in rising temperatures

40 Plan ahead for sick days

Prevention of common ailments to reduce trouble with diabetes

44 Facing diabetes together

Help your partner get through diabetes

fitness

50 Enjoy your workout with Pound fitness

Innovative fat burning cardio workout

52 Weight loss surgery: Myths and Facts

An expert busts all myths about weight loss surgery

56 Tenets for a diabetic free life

A fitness plan to fight diabetes by a wellbeing guru

food

66 Salads that satisfy

The innovative and tasteful world of salads

74 Enjoy your veggies

Cooking tasty meals filled with the goodness of vegetables

82 Celebrate tea time

Health benefits and amazing taste of varieties of tea.



IT'S TIME TO CELEBRATE the woman in you!

diabetic
LIVING

INDIA EDITION

Publisher & COO VIKAS JOHARI
CEO & Managing Director PRAKASH JOHARI
Executive Editor JUHI DUA

MEREDITH CORPORATION
Chairman and CEO STEPHEN M. LACY
Vice Chairman MELL MEREDITH FRAZIER
Editor MARTHA MILLER JOHNSON
International Director MIKE LOVELL

Contact us diabeticliving@maxposure.in
Information info@maxposure.in
Subscriptions subscribe@maxposure.in
Careers hr@maxposure.in

MaXposure Media Group India Pvt. Ltd
North | Head Office | Unit No. G-0-A (Ground Floor),
Mira Corporate Suites, Plot No 1 & 2, Ishwar Nagar,
Mathura Road, New Delhi-110065

Tel: +91.11.43011111 Fax +91.11.43011199
Chandigarh | Sco no. 866, 2nd Floor, Office No. 18, NAC Manimajra,
Chandigarh - 160101 Tel: +91.9988985839

West | Mumbai | Office No 401, Shubham Centre A1,
Cardinal Gracious Road, Chakala,
Andheri (East), Mumbai 400099
Tel: 91.22.61991111, Fax: 91.22.61991115

Pune | Subjeev Business Centre
29, Ground Floor, East Street Galleria, 2421,
East Street, Camp Pune-411001
Tel. 91.8055366112

Ahmedabad | 4, Meagabyte Business Centre,
Navrang Building, Opp Samsung Show room,
Swastik Char Rasta, C.G. Road,
Ahmedabad - 380009 Tel : 91.79.40193627

Indore | 7/1, 409, Fourth Floor, Ratan Mani Complex,
Opposite Inter Star Showroom, New Palasia, Indore - 452001
Tel : 91.731.4248881

East | Kolkata | DPS Corporate Club, First Floor, 9A Sebak Baidya Street,
Kolkata-700029, Tel: 91.33.40680111

Raipur | Magnetto Offizo, Office No.546, Fifth Floor, Magnetto
The Mall, G.E.Road, Labhandi, Raipur
Tel : 91.771.4264571

South | Bengaluru | 1010 A Wing, Tenth Floor, Mittal Towers,
M.G. Road, Bengaluru-560001, Karnataka, India
Tel: 91.80.40921037-38, Fax: 91.80.41510657

Hyderabad | 1-11-222/2 Ground Floor, Street No.4, Gurumurthy lane,
Begumpet, Hyderabad-500 016,
Andhra Pradesh. Tel : 91.40.40021545

Chennai | 2nd Floor, X-42, Sindur Shopping Centre,
2nd Avenue Road, Chennai- 600040
Tel: 91-44-42015684, Fax: 91-44-42015685

Cin No. U22229DL2006PTC152087

Distributed by: CNA Distributors
4-E/15, Jhandewalan Extension Ashoka Centre-Second Floor, New Delhi-110055
Ph No-91.11.41541111.Fax No-91.11.23626036

Diabetic Living India magazine is printed and published by Vikas Johari on behalf of Maxposure Media Group (India) Pvt. Ltd. at Maxposure Media Group (India) Pvt. Ltd. Unit No. G-0-A (Ground Floor), Mira Corporate Suites, Plot No 1 & 2, Ishwar Nagar, Mathura Road, New Delhi-110065, India. Diabetic Living India is published bi-monthly. Diabetic Living India magazine is a trademark of Maxposure Media Group (India) Pvt. Ltd. and the entire contents of Diabetic Living India magazine are copyrighted to Maxposure Media Group (India) Pvt. Ltd. all rights reserved. The writing, artwork and/or photography contained herein may not be used or reproduced without the express written permission of Maxposure Media Group (India) Pvt. Ltd. Maxposure Media Group (India) Pvt. Ltd. does not assume responsibility for loss or damage of unsolicited products, manuscripts, photographs, artwork, transparencies or other materials. Maxposure Media Group (India) Pvt. Ltd. does not assume any liability for services or products advertised herein.

For inquiries | Tel: 91.11.43011111, Fax : 91.11.43011199, diabeticlivingonline.in

Disclaimer : Diabetic Living (India) is not responsible nor liable for any advice, course of treatment, diagnosis or any other information, services or products that you obtain through this magazine.



Diabetes currently affects over 246 million people worldwide and over half of these are women. Mix diabetes with gynecological concerns and other health issues and diabetes in women instantly turns into a torturous and a killer epidemic. Even if you currently don't have diabetes, pregnancy brings the risk of gestational diabetes. Approximately 2% to 5% of all pregnancies suffer from gestational diabetes and that is a big number! What is even worse is that women who have had gestational diabetes or have given birth to a baby weighting more than 9 pounds are at an increased risk for developing type 2 diabetes later in life.

As you can picture now, there is indeed a lot of fine print when it comes to women and diabetes and the more carefully you read it, safer it is for you. On the occasion of International Women's Day, we have tried to throw light on all aspects of women and diabetes. From heart issues amongst women with diabetes to exploring the connection between bipolar mood disorder and diabetes in women, we have covered a gamut of concern areas to help you stay aware, healthier and in control.

In this issue, we have made an attempt to turn the spotlight on subjects that are often ignored. Take our article in the wellbeing section for example. **'Adolescence against diabetes'** talks about diabetes among teenagers and also lines up preventive measures one could take. **'Weight loss surgery: Myths and facts'**—our star feature in the fitness section, busts all myths related to weight loss surgery. In our food section, we serve up a sunny feature—**'Enjoy your veggies'**, urging you to load the seasonal summer delights on your platter. Also, don't miss relishing the crunch of our cover story—**'Salads that satisfy'**.

There's a lot more there that can indeed bring sweet sunshine into your life, despite being a diabetic. So go ahead, devour the issue. After all, some treats are meant to be binged upon.

Happy Women's Day!

Juhi Dua



Find us on Facebook
Like it! www.facebook.com/diabeticlivingindia

IT'S ALL GOOD INSIDE



Page 34
Teen diabetes
and prevention



Page 40
Preparation
for sick days



Page 60
Keep your hands
clean for health
and more

Editorial advisory board

The following health care professionals—all experts in diabetes management—review articles that appear in *Diabetic Living*[®] magazine:

Connie Crawley is a nutrition and health specialist for the University of Georgia Cooperative Extension Service in Athens, specialising in diabetes and weight loss. Connie is a member of the American Dietetic Association Diabetes Care and Education practice group.

Marion J. Franz has authored more than 200 publications on diabetes, nutrition, and exercise, including core-curriculum materials for diabetes educators. Marion is a member of the American Dietetic Association Diabetes Care and Education practice group.

Joanne Gallivan is executive director of the National Diabetes Education Program at the National Institutes of Health. Joanne is a member of the American Dietetic Association Diabetes Care and Education practice group.

Marty Irons practises at a community pharmacy and also served in industry and the military.

Jeannette Jordan works for the Medical University of South Carolina in Charleston and consults with the Centers for Disease Control and Prevention.

Irene B. Lewis-McCormick is a fitness presenter and educator. Certified by the nation's leading fitness organisations, she is a faculty member of the American Council on Exercise.

Chris Smith, The Diabetic Chef[®] is the president of Health Range, Inc., and a professionally trained chef. He is a food consultant and cookbook author and conducts healthy-cooking classes.

Hope S. Warshaw is a writer specialising in diabetes care. She has authored several American Diabetes Association books. Hope is a member of the American Dietetic Association Diabetes Care and Education practice group.

Fred Williams practises endocrinology and specialises in diabetes. He is an active member of the American Association of Clinical Endocrinologists and serves on the board of directors.

John Zrebiec is director of Behavioural Health Services at the Joslin Diabetes Center in Boston and a lecturer in the department of psychiatry at Harvard Medical School.

Editorial advisory board, India

The following health care professionals—all experts in diabetes management—review articles that appear in *Diabetic Living*® magazine's India edition:

Decorated with the Padma Shri and BC Roy award, **Dr. Anoop Misra** is Chairman, Fortis-CDOC Center of Excellence for Diabetes, Obesity, Metabolic Diseases, and Endocrinology, in New Delhi. He is also Chairman of the National Diabetes, Obesity and Cholesterol Foundation (N-DOC) and Director of the Diabetes and Metabolic Diseases, Diabetes Foundation of India. Dr. Misra has led several pioneering research studies on diabetes and published more than 300 research papers.

Dr. Ambrish Mithal, Doctor of the year DMA 2005, cited in Limca book of records since 2005, is presently the Chairman and Head of Endocrinology and Diabetes division at Medanta, the Medicity, Gurgaon. Dr Mithal is immediate Past President, Endocrine Society of India and chairs the Nutrition Working Group of the Committee of Scientific Advisors of the IOF, Switzerland.

Dr. V. Mohan is Chairman and Chief Diabetologist of Dr. Mohan's Diabetes Specialities Centre and President & Director of Madras Diabetes Research Foundation, Chennai. He has published over 600 papers in prestigious peer reviewed journals and contributed over 100 chapters to text-books on diabetes. He has received the prestigious Dr. B.C. Roy National Award, and Fellowships from all the four Royal College of Physicians of London, Edinburgh, Glasgow and Ireland.

Dr. Shashank R Joshi is a well-known endocrinologist in Mumbai. He is president of the All India Association of Advancement for Research in Obesity and vice president of the Association of Physicians of India.

Padma Shri and BC Roy awardee **Dr. KK Aggarwal** is an eminent name in cardiology. President of the Heart Care Foundation of India and editor-in-chief of the Indian Journal of Clinical Practice, Dr. Aggarwal has a keen interest in mind-body healing. He is a regular columnist and expert for both print and television networks.

Rekha Sharma is director of Clinical Nutrition and Dietetics at the Diabetes Foundation of India. This former chief dietician of the All India Institute of Medical Sciences in New Delhi has devoted several years of her life to the study of diabetes management.

Madhuri Ruia is a nutritionist and fitness expert in Mumbai. A certified pilates expert from the Pilates Institute of UK, she runs Integym, a state-of-the-art centre that promises 'intelligent fitness' to its clients.

Dr. DS Chadha is head of cardiology at the Command Hospital in Bengaluru. He has won dozens of awards, written several research papers in leading medical journals and chaired several national and international conferences on health issues.

Working Committee

Dr. Swati Bhardwaj is vice head at the Center for Nutrition and Metabolic Research and a nutritionist with the Diabetes Foundation (India) and National Diabetes Obesity and Cholesterol Foundation (N-DOC).

Shubhda Bhanot is a certified diabetes educator and a nutritionist with 14 years of experience in the field. A life time member of ADE (Association of Diabetes Educators), she is presently working as chief diabetes educator at Medanta, The Medicity, Gurgaon.

1 winner

Diet Plan

I found the article 'Smart Carb Spending', very helpful. I was diagnosed with pre-diabetes a few months back, and I was almost in a state of panic for a while. My doctor suggested me to keep a check on what I eat and assured that things will be alright. I have read extensively on the subject and found this piece one of the better guides to save myself from falling on the other side. Good job!

Aparna Gautam, Bangaluru

2

Namaste Yoga

The article on detox yoga was very helpful. I have included yoga in my regular exercise schedule now. In fact, I have shifted my work-out slot to early morning from evening, and it keeps me both fit and healthy. This has motivated me to read more about yoga and do stretching exercises.

Rajiv Pant, New Delhi

3

Forward Leap

To live with a disease like diabetes gets really stressful sometimes, for one always has to stay on the toes to get the glucose levels on check. 'Leaping forward' was a very motivating article that would help to overcome disappointments and social stigma. I read it every time I need a push to take care of my health and not give up. Thank You.

Sujata Singh, Kota

letters to the editor

The best letter wins a
one year subscription of

**diabetic
LIVING**
INDIA



diabetic LIVING INDIA



PRINT SUBSCRIPTION



shop.maxposure.in

DIGITAL SUBSCRIPTION



diabeticlivingonline.in/apple



diabeticlivingonline.in/magzter



diabeticlivingonline.in/zinio

also available on



SUBSCRIPTION FORM

Please fill the form in CAPITAL LETTERS and mail it with the Cheque/DD to the address mentioned in the form.

Name

Address

City State Pin Code

Mobile (Res)

Email

Subscription for ☐ 1 year ☐ 2 years ☐ 3 years

I am enclosing Cheque/ DD No.

Dated

drawn on (specify bank) favouring **MAXPOSURE MEDIA GROUP (INDIA) PVT. LTD** for ₹

Year	Issues	Price Cover	You Pay (₹) *
<input type="checkbox"/> 1	6	600	₹600
<input type="checkbox"/> 2	12	1200	₹1140
<input type="checkbox"/> 3	18	1800	₹1620

* Including Postage & Handling Charges Courier By - Blue Dart (DHL) & Aramex



TO SUBSCRIBE TO diabetic

Please Call: 011-43011111

Mailing Address: **Maxposure Media Group India Pvt. Ltd.**, Unit No. G-0-A (Ground Floor), Mira Corporate Suites, Plot No 1 & 2, Ishwar Nagar, Mathura Road, New Delhi-110065 Or simply fill in the **Subscription Form** and send it to us along with a **Cheque** or **DD**.

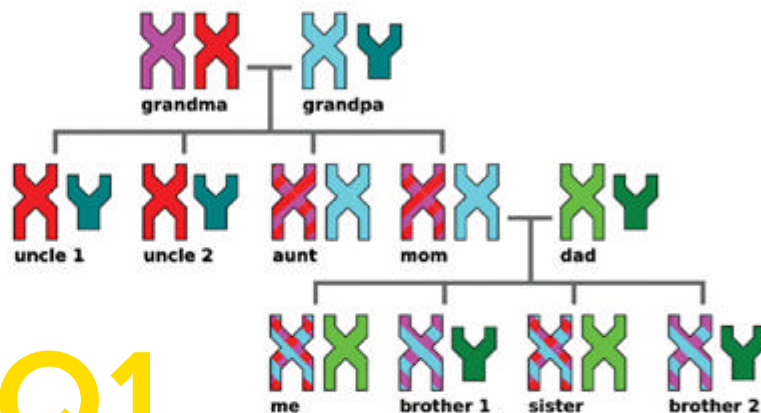
Mail us at subscribe@maxposure.in Log on to <http://shop.maxposure.in>

Terms & Conditions :

• Please do not pay cash. • This is a limited period offer. • Rates & offer valid in India only. • Please allow 3-4 weeks for processing of your subscription. • Please write your name and address on the reverse of the Cheque/DD. • Maxposure Media Group (India) Pvt. Ltd. will not be responsible for postal delays, transit losses or damage to the subscription form. • If for any reason, Maxposure Media Group (India) Pvt. Ltd. skips any issue during the subscribed period, the subscription will be automatically extended accordingly. • Maxposure Media Group (India) Pvt. Ltd. reserves the right to terminate this offer or any part thereof at any time or to accept or reject any request at their absolute discretion. • No request for cancellation of subscription will be entertained after the delivery of the magazine has commenced. • Disputes, if any, are subject to the exclusive jurisdiction of competent courts and forums in Delhi only. • Terms and conditions are subject to change. • This offer supersedes all previous subscription offers. • Any change in periodicity or the cover-price will not apply to existing subscribers who will continue to receive the same number of issues at the same price as subscribed to. • In case of non-receipt of the publication, please inform the Subscription Department within 45 days. • We may disclose your personal identifiable information to companies not owned by Maxposure Media Group (India) Pvt. Ltd. who want to market products or services to you unless you specifically refuse to entertain any mail from companies not owned by us.



Dr. Anoop Misra
Chairman, Fortis-C-DOC Centre of Excellence for Diabetes, Metabolic Diseases and Endocrinology; Director, Centre of Internal Medicine (CIM), Fortis Hospital, Vasant Kunj, New Delhi; Chairman, National Diabetes, Obesity and Cholesterol Foundation (N-DOC); Director, Diabetes and Metabolic Diseases, Diabetes Foundation (India)



Q1

Will my kids inherit diabetes from me?

Ans. A child born to a parent who has type 1 diabetes is at slightly greater risk of developing type 1 diabetes than children of parents without diabetes. The risk is slightly higher when the father has type 1 diabetes. A child has a greater risk for developing type 2 diabetes if both the parents are diabetic.

Researchers have identified genes that could play a role in inheritance of diabetes. However, currently genetic tests are not recommended for predicting diabetes.



Q2

I have Type 2 diabetes. Will there be any complications if I use birth control?

Ans. Birth control pills may raise your blood glucose levels. Using them for longer than a year or two may also increase your risk of complications, which may be in the form of increased blood pressure, and effect on eyes and kidneys. In such a scenario, it is reasonable to use other effective birth control methods, such as a diaphragm, vaginal ring, patch, that will not affect blood glucose levels.

**Birth
control
pills
increase
the risk
of complications
in the form of
effect on eyes
and kidneys**

meno pause

Q3

Will menopause affect my diabetes?

Ans. Yes. The changes in hormonal levels and balance may lead to uncontrolled blood glucose levels. This is accompanied by redistribution of body fat, which accumulates over abdomen, disrupting glucose metabolism. On the other hand women with diabetes are also at risk of developing premature menopause.

Q4

I have read that breast cancer survivors are more likely to develop diabetes. Is this true?

Ans. Yes it is true that there is an association between breast cancer and diabetes. Research shows that in most women the risk began to increase 2 years after cancer diagnosis and also when they received chemotherapy. For patients who received chemotherapy, the risk appeared to be highest early in the course of follow-up and declined thereafter. A drug used with chemotherapy, steroids, will increase blood glucose and blood pressure.



Q5

Can I breastfeed if I have gestational diabetes?

Ans. Yes, women with gestational diabetes can breast feed, unless your doctor advises you otherwise. Breast milk provides the best nutrition for babies and breastfeeding is recommended for all mothers with either pre-existing diabetes or gestational diabetes.



Dr. N. K. Narayanan
MRCP (Gen.Med,UK), SCE (Diab & Endo,UK), MRCP (Diab & Endo,UK), CCT - Diab & Endo,UK
(Formerly Research Associate, Cambridge University, UK)
Consultant Diabetologist & Endocrinologist
Apollo Hospitals, Greams road, Chennai- 600 006.



Q1

What are the symptoms of Type 1 diabetes that I should be careful about for my 12 year old?

Ans: Symptoms of Type 1 diabetes include excessive thirst, frequent urination, bed wetting in children who did not have this problem before, increased appetite, unusual tiredness, unintentional weight loss, blurred vision and genital infections. The symptoms are often rapid at the onset (within days to weeks) compared to Type 2 diabetes. The onset of Type 1 diabetes is often preceded by an acute illness.

tender years

our expert answers all queries regarding your little one's wellbeing



Q2. Is it necessary to monitor the blood sugar level even if one feels fine?

Ans: Yes, it is important to monitor the blood glucose levels periodically. With mild to moderate elevation in blood sugar levels, one may not always recognise the symptoms and elevated blood glucose levels can lead to complications in the long run. Also blood glucose level beyond certain level ($\sim > 300$) can lead to an acute complication called diabetic ketoacidosis, a serious condition requiring hospital admission. Hence, periodic monitoring is required. The monitoring is especially important during illnesses (eg. infections).



Q3. Which insulin is best suited for a teenager for Type 1 diabetes?

Ans: Two types of insulin regimes are in common use: (i) four injections per day regime – gives flexibility of meal pattern and lifestyle; gives better control of blood sugars (ii) twice daily mixed insulin – lesser injections per day; needs fixed timing of meal intake.



Q4. Is there a possibility that one can outgrow Type 1 diabetes?

Ans: No, one cannot outgrow Type 1 diabetes, since it is a condition where there is complete absence of insulin in the body. Hence, lifelong insulin administration is essential.

Q5. What is Hyperglycaemia?

Ans: Hyperglycemia means elevated blood glucose levels above the normal limits. In general, a fasting glucose level less than 100 and post-meal glucose level less than 140 are considered normal.



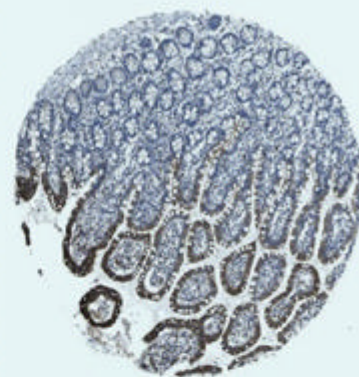
educate yourself

and everyone around you about how to take care of diabetes and related complications



New Protein linked to gestational diabetes

A newly discovered protein has been included in the group of catalysts called hexokinases that help study how we metabolise sugar. HKDC1, the new protein may assist in predicting whether an expectant mother develops hyperglycemia, or excess blood sugar during pregnancy. This is a pathbreaking discovery as gestational hyperglycaemia during pregnancy presents a harmful environment for the growing foetus, which may contribute to obesity and diabetes later in the child's life.



Probiotics, a cure for diabetes

According to the latest findings, the development of Type 1 diabetes is attributed to the gut. It was found that children who had diabetes, had 25% less types of bacteria in their guts than the rest. Scientists managed to introduce a strain of bacteria, found in probiotic yoghurt, and get it to secrete a hormone called GLP-1, that lowered the high blood glucose levels. A pill is being developed that uses the engineered bacteria to move insulin production to the intestine.



Extra benefits for non-smokers

A new study has claimed that the diabetes drug metformin has more perks to offer than merely controlling the insulin level in the body. Those non-smokers who had diabetes and were on the drug, demonstrated a lower susceptibility to developing lung cancer. In generic terms, there is no link between lung cancer prevention and metformin but a smoke-free physiology seems to decrease the risk with longer use of the drug.



'Smart' insulin to outsmart diabetes

Scientists are close to bringing a 'smart' insulin in the market that would make it easy for diabetic patients by auto-monitoring their blood sugar levels. They have been testing a chemically modified compound known as Ins-PBA-F, which automatically starts working when blood sugar level rises. This remains in circulation in the blood for 24 hours by attaching to a protein, called albumin. When blood sugar levels rise, insulin is released on its own to regulate glucose levels. This would prospectively reduce the need to regularly check blood sugar before and after meals.

Inhalation powder launched

Insulin had to be always injected in the body in order to control the blood sugar levels, but Sanofi and MannKind Corp. have changed the trend by introducing an inhaled insular powder in the market.

Afrezza inhalation powder is a drug-device combination that delivers a dry formulation of human insulin, using a small inhaler. The insulin is absorbed rapidly due to its short duration of action and is administered before a meal. In order to avoid other medical complications asthma patients and smokers are advised to not use it.



prenatal crisis: gestational diabetes

Hit by diabetes with the onset of pregnancy? Here's the A to Z about its repercussions on the foetus and the congenital abnormalities that come with it.

What is gestational diabetes?

Gestational diabetes is a condition in which women with no previous history of diabetes start showing high levels of blood glucose. This may be diagnosed in various stages of pregnancy due to hormonal changes in the body. It is prevalent in about 4% of women in India.

Pregnancy may be complicated by diabetes in two distinct forms:

- Gestational diabetes mellitus (GDM). It is defined as glucose intolerance of varying severity with the onset or first recognition during pregnancy. This subset constitutes 90% of women with pregnancies complicated by diabetes.
- Pre-gestational, type-1 or type-2 diabetes. Pregnancies which are complicated by either one of them, pose an additional risk for both mother and foetus besides the effect on foetal growth and development in mid and late pregnancy.





How to educate the Patients?

It is necessary that women are well-educated about these risk factors, both in pre- and post-pregnancy stages. These counselling sessions are very crucial in treating women during pregnancy. Counselling is done once at the pre-conception stage. Initially, a patient visits the doctor for counselling when she realises that she has missed periods. Later the frequency of counselling sessions depends on Antenatal check-ups. While gynecologists are in touch with patients since the beginning, diabetologists, dieticians and hysiotherapists are involved later.

Who is most likely to be diagnosed with GDM or pre-GDM?

Quite often, women who are above the age of 25 years, are overweight and have a strong family history of diabetes, are diagnosed with GDM or pre-GDM.

Gynecologists are in touch with patients since the beginning, while **diabetologists, dieticians** and hysiotherapists are involved later.

Factors responsible for GDM or pre-GDM:

1. Strong family history of diabetes
2. Trend of giving birth to large infants (>4 kg; 8 lbs 13 oz)
3. History of recurrent foetal loss
4. Persistent glycosuria (sugar in urine)
5. Age above 25 years
6. Past history of glucose intolerance or diabetes in a previous pregnancy
7. Obesity; being overweight
8. History of stillbirth, unexplained neonatal death, congenital malformations, prematurity.
9. History of pre-eclampsia or polyhydraminos

10. Chronic hypertension
11. Recurrent severe fungal infections or urinary tract infections
12. History of difficult delivery with an associated neurological disorder in the infant.

Precautionary measures to avoid GDM or pre-GDM?

Women should be screened in all the three trimesters. A plasma glucose level obtained one hour after a 75 g glucose load administered at any time of the day without regard to time since the last meal, has become a well validated and widely applied screening procedure for women between 24 and 28 weeks of gestation. Using a cut-off value of > 140 mg/dl identifies 80%

women with GDM. Using a cut-off value of > 130 mg/dl identifies 90% women with GDM.

High Risk factors for GDM

- Marked obesity
- Prior GDM
- Glycosuria
- Strong family history

Congenital abnormalities due to GDM

- **Cardiac (most common):** transposition of great vessels, ventricular septal defect (defect in the wall dividing the left and the right ventricle of the heart), atrial septal defect (causes the oxygen rich blood in the left side of the heart to flow

Effects of GDM (Gestational diabetes mellitus) on foetus

- Congenital abnormalities
- Neonatal hypoglycemia
- Macrosomia (big baby syndrome > 4 Kg or >8 lb 13 oz)
- Jaundice
- Polycythemia / hyperviscosity syndrome
- Hypocalcaemia, hypomagnesaemia
- Birth trauma (due to macrosomia and shoulder dystocia)
- Prematurity
- Hyaline membrane disease
- Apnea and bradycardia

The risk of foetal anomaly is not increased in GDM patients. However, the risk of unexplained still births (during the last 4-8 weeks of gestation) are similar to pre-gestational diabetes. Macrosomia is a result of persistent maternal hyperglycemia leading to foetal hyperglycemia and prolonged foetal hyperinsulinism. This stimulates excessive somatic growth mediated by insulin-like growth factors (IGFs). Macrosomia affects all organs except the brain.



However, the risk of foetal anomaly is not increased in GDM patients, the risk of **unexplained still births** are similar to pre-gestational diabetes.



towards the right side and mix with the oxygen-poor blood)

- **Central nervous system (7.2%):** spina bifida (partially formed vertebrae overlying the spinal cord, allowing a portion of the spinal cord to protrude out), anencephaly (absence of a major portion of the brain, skull and scalp that occurs during embryonic development), hydrocephalus (accumulation of cerebrospinal fluid in the ventricles of the brain)
- **Skeletal:** cleft lip/palate, caudal regression syndrome (abnormal foetal development of the lower spine)
- **Genitourinary tract:** ureteric duplication
- **Gastrointestinal:** anorectal atresia (the anus is either not present or is in the wrong place)
- Renal agenesis (one or both foetal kidneys fail to develop), duplex ureters, cystic kidney
- Situs inversus (major visceral organs are reversed or mirrored from their normal positions)

Effects of GDM on pregnancy

- Pre-eclampsia (high BP and large amount of protein in urine): affects 10-25% of all pregnant women with GDM
- Infections: high incidence of chorioamnionitis (inflammation of foetal membranes) and postpartum endometritis (inflammation of the inner lining of the uterus)
- Postpartum bleeding: high incidence caused by exaggerated uterine distension
- Caesarian section is more common due to foetal macrosmia (large foetus) and cephalo-pelvic disproportion
- Weight gain
- Hypertension
- Miscarriages
- Third trimester foetal deaths
- Long term risk of type-2 diabetes mellitus
- More insulin is necessary to achieve metabolic control
- Progression of retinopathy, esp. severe proliferative retinopathy
- Progression of nephropathy, especially in case of renal failure
- Increased risk of coronary artery disease, and a high risk of maternal death in post MI patients
- Cardiomyopathy

What are Glycemic control targets?

Tight glycemic control can reduce foetal risk. But, stringent glycemic control puts the mother at increased risk of hypoglycemic events and the foetus at a risk of being small-for-gestational age.

American Diabetes Association Recommendations:

- Fasting whole blood glucose- <95 mg/dl
- 1 hr postprandial blood glucose- <140 mg/dl
- 2 hr postprandial blood glucose- <120 mg/dl

These are venous plasma targets, not glucometer targets



Topics that must be discussed with the patient:

- Maternal and foetal complications
- Medical Nutrition therapy
- Glycemic monitoring (self monitored blood glucose measurement and glycemic targets)
- Pre-conception counselling
- Foetal monitoring (ultrasound)
- Planning on delivery
- Long term risks

Tips to use self monitored blood glucose (SBMG) using HGT (Haemogluco test machine)

- This test needs to be administered by pregnant women at least 4 times a day, fasting and 1 to 2 hours after start of meals
- The patient needs to maintain a log book
- The patient needs to use a memory meter
- Glucometer needs to be Calibrated frequently

Thus, patients can check their blood sugar level conveniently at home and they need to be hospitalized. After having elaborated on ways and means to deal with the risk factors associated with GDM, it is safe to conclude that GDM (Gestational diabetes mellitus) could be prevented if the patients approach the doctors at the right time and undergo specialized counselling sessions. 📌

Dr. Anjali Talwalkar, Consultant
Gynaecologist, Kohinoor Hospital

your heart will go on...

Heart disease is a serious issue for any diabetic, but the condition presents heightened complications among women.

A new research, published in The Lancet Diabetes & Endocrinology, conducted by the School of Public Health at The University of Queensland in Australia on more than 200,000 type 1 diabetic patients, has revealed startling results related to sex-specific estimates of type 1 diabetes mortality rate. Researchers analysed 26 studies conducted between 1966 and 2014 and found that women with type 1 diabetes face a double risk of dying from heart disease as compared to men who have the same condition.

Type 1 diabetes, in which the pancreas does not produce sufficient levels of insulin to convert sugars, starches and other foods into energy, is becoming common all over the world and women are easy targets.

Research has also established that poor glycemic control and insulin management are more common among women than men and could be contributing factors to women's raised risk of death.

Heart disease among women is increasing due to many factors, the major ones being stress and sedentary lifestyles at work places apart from stress caused while managing both personal and professional life. Due to this stress, some women succumb to smoking and drinking, which in turn lead to high blood pressure, eating disorders and heart diseases.

The difference in the bodies of men and women is also manifest in the difference in their symptoms and reasons of heart disease. The most common symptom of heart disease is a massive chest pressure. However,



women can experience a heart attack without such chest pressure. Instead, they may experience shortness of breath, pressure or pain in the lower chest or upper abdomen, dizziness, fainting, upper back pressure or extreme fatigue.

In women, some of these symptoms can also be associated with conditions that only affect them, like pregnancy and menopause. In fact, both pregnancy and menopause can increase the risk of heart disease.

Fight it right

Time management, yoga, meditation, and adopting a healthy lifestyle are some of the ways to keep stress, hypertension and heart diseases at bay. But diabetic patients have to go the extra mile to keep their heart safe and sound. Their blood glucose, blood pressure, and blood cholesterol should be close to the recommended limits, as suggested by their physician. For this, they should get their blood sugar level checked at regular intervals. Uncontrolled diabetes can eventually lead to other health problems as well, such as loss of vision, kidney failure, and amputations. Having diabetes also puts women at increased risk of heart disease and stroke.

In the case of stroke, patient should get medical care right at the first sign of a stroke. If blood vessels leading



Though intimidating, the heart bypass surgery is the best modality of treatment in terms of **mid term** and **long term** survival.


NAMBIAR TECHNIQUE

Usage of both internal mammary arteries for bypass surgery, whose longevity is more than 30 years, is used in less than 5% of patients world wide. The reason being that removal of both mammary arteries after splitting the sternum open can result in delayed or non-healing of the sternum.

The NAMBIAR TECHNIQUE was developed with the aim of keeping the sternum intact and also usage of both internal and mammary arteries to give the best outcome to the patient. The NAMABIAR TECHNIQUE was published and validated in 2014 by the International Society for Minimal Invasive Cardiac Surgery. Till Now, Dr. Nambiar has carried out more than 600 cases using this technique successfully in Delhi. He is the pioneer and innovator of this technique and patients from all over India and abroad come to Delhi to get their Heart Bypass via this technique. The technique encompasses using 2-inch cut under the left chest, harvesting of both internal mammary arteries under direct vision through this incision and carrying out the bypass on a beating heart. This surgery has lower risk of infection, bleeding, scars and need for blood transfusion. Also, patients operated through this technique are usually discharged from the hospital in three days and are fit to be back at work in 10 days from the date of discharge, whether one is an executive or a manual labourer.

Nevertheless, it cannot be denied that lifestyle changes and education are the simplest ways to decrease the rate of heart diseases globally.

to your brain are blocked by blood clots, the doctor can give you a "clot-busting" drug. The drug must be given soon after a stroke to be effective.

However, in cases of two or more arteries being blocked, heart bypass surgery is the best option. Heart bypass surgery is a daunting proposition to any individual who needs one. Though intimidating, the CABG (coronary artery bypass grafting) or heart bypass surgery is the best modality of treatment in terms of mid-term and long-term survival. Unfortunately, the leg veins used for the bypass surgery do not last for more than 10-12 yrs and patients require an intervention after that. 

Dr. Pradeep Nambiar, Senior Cardiothoracic surgeon, Moolchand City Hospital, New Delhi



toll on hormones: **PCOS**

The silent condition turns your hormones haywire and creates major physiological complications. And for all this, your diabetes may be responsible.

What is polycystic ovary syndrome?

The term polycystic ovary syndrome (PCOS) describes a group of symptoms and changes in hormone levels. It's one of the most common hormone related problems in women during their reproductive years. PCOS is a leading cause of infertility and can also be a risk factor for other health problems. Women with this condition often have many painless cysts in their ovaries which are harmless, but many of the symptoms can be emotionally distressing. Symptoms of PCOS include

- Irregular or absent menstrual periods
- Excess hair on face and body
- Infertility
- Acne
- Thinning hair on scalp

- Excess weight especially around abdomen area

PCOS affects more than reproduction. PCOS can have serious medical implications in the form of increased risk for diabetes, heart disease, infertility and even endometrial cancer later in life.

What causes PCOS?

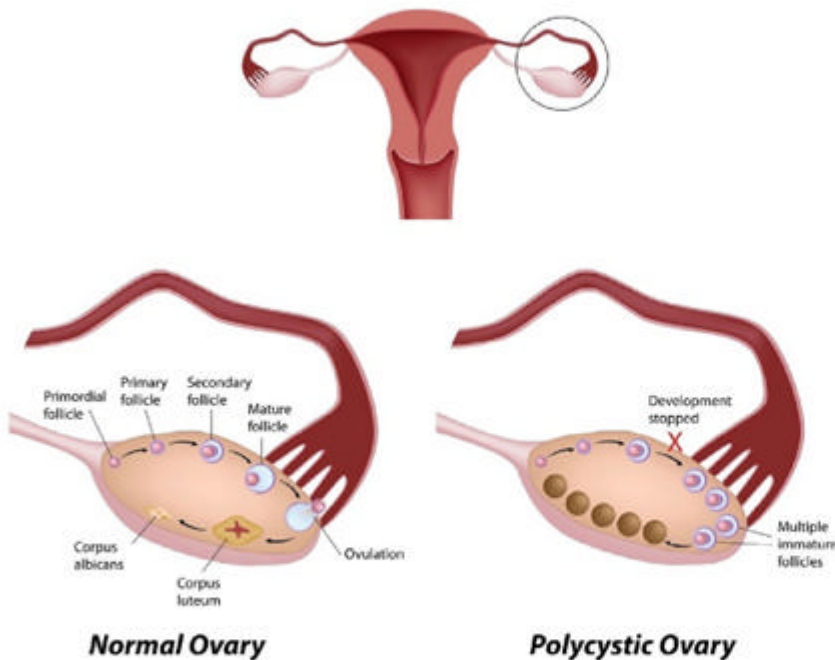
The exact cause of PCOS is unclear. It's common for sisters or a mother and daughter to have PCOS, but a definite genetic link hasn't been found.

PCOS results from a combination of several related factors. Many women with PCOS have insulin resistance, in which the body can't use insulin efficiently. This leads to high circulating blood levels of insulin,

called hyperinsulinemia. It's believed that hyperinsulinemia is related to increased androgen levels, as well as obesity and type 2 diabetes. In turn, obesity can increase insulin levels, causing worsening of PCOS. But many PCOS women are thin too!

How does PCOS affect ovulation?

In girls and women, the ovaries produce hormones, which have a finely orchestrated monthly cyclical rhythm. The purpose of this cyclical rhythm is to release one egg from ovary (which is called ovulation) every month. Meanwhile the uterus (womb) gets ready for pregnancy. If the woman does not conceive, then the uterus thickened lining sheds off resulting in menstrual bleed.



The high insulin level acts on ovaries and disturbs its hormones, resulting in PCOS. **An increase in weight further impairs the action of insulin and worsens the symptoms.**

If the fine synchronisation is disturbed, egg is not released and menses does not occur at regular time. The ovaries become enlarged and develop cysts which produce androgens (male hormones) resulting in hirsutism and acne.

But what has diabetes to do with this?

The pancreas produces a hormone called insulin, which regulates blood glucose levels. If insulin is not acting properly (which is called insulin resistance), then body tries to maintain normal sugars by increasing insulin levels.

The high insulin level acts on ovaries and disturbs its hormones resulting in PCOS. Many of these women have a velvety black pigmentation on the neck called acanthosis nigricans, which is a sign of insulin resistance. Over a period of time, even high level of insulin in the body is not able to control blood glucose levels and diabetes develops. Any increase in weight further impairs the action of insulin and worsens the disease symptoms!

So what should one do if one has irregular cycles?

Irregular cycles are most commonly due to PCOS, but disturbance of any hormone in the body will disturb the menstrual cycle. So you need to consult an endocrinologist who will order some tests to rule out any



disorders of other hormones like thyroid, adrenal or ovarian. Ultrasound of ovaries shows multiple cysts in half the cases.

Regulate your menstrual cycle.

If you're NOT trying to become pregnant, your endocrinologist may prescribe low-dose birth control pills that contain a combination of synthetic estrogen and progesterone. They decrease androgen production and give your body a break from the effects of continuous estrogen. This decreases your risk of endometrial cancer and corrects abnormal bleeding.

An alternative approach is taking progesterone for 10 to 14 days each month. This regulates your periods and offers protection against endometrial cancer, but it doesn't improve androgen levels.

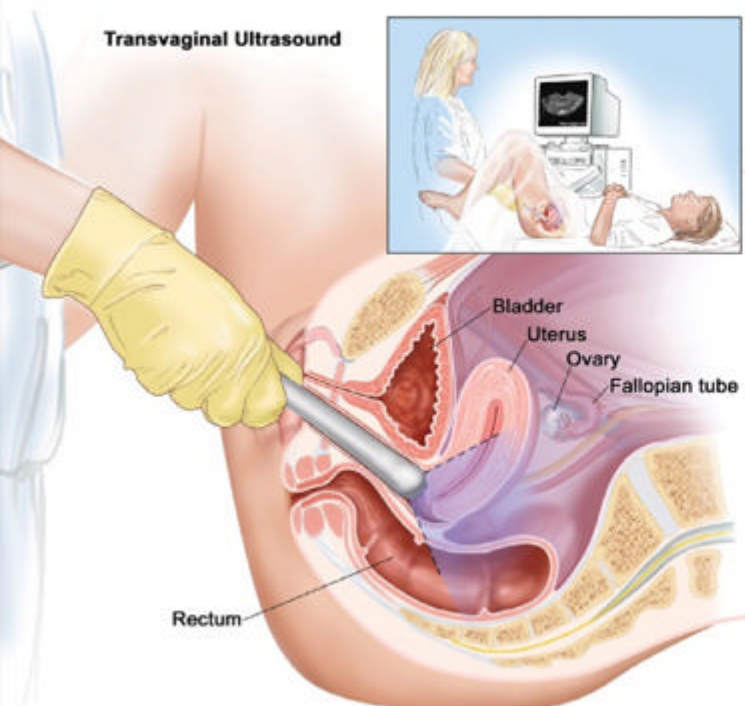
Reduce excessive hair growth.

Your doctor may recommend

Progesterone regulates your periods and offers protection against endometrial cancer, but it doesn't improve androgen levels.



- birth control pills to decrease androgen production
- spironolactone (Aldactone) that blocks the effects of androgens on the skin. Because spironolactone can cause birth defects, effective contraception is required when using the drug and it's not recommended if you're pregnant or planning to become pregnant.
- Eflornithine (for local application) is another medication possibility; the cream slows facial hair growth in women. The medicines take 3 to 6 months to start showing effect and the effect wanes after stopping the medication.
- Shaving, waxing and depilatory creams are nonprescription hair removal options. Results may last several weeks, and then you need to repeat treatment.
- For longer lasting hair removal, your doctor might recommend a procedure that uses electric current (electrolysis) or laser energy to destroy hair follicles and control unwanted new hair growth.



Transvaginal Ultrasound to diagnose PCOS

One of the main tools to diagnose polycystic ovary syndrome is Transvaginal Ultrasound, in which the patient is given a probe (called a transducer) to place into the vagina. Once inside, the probe sends out sound signals which reflect off the body structure and a computer uses them to create an image on the monitor. The images thus found, in conjunction with the results of blood tests and physical examination, help diagnose the syndrome.

The examination is executed if 1 of the 4 symptoms exist in a patient:

- **Menstruation irregularities**
 - Absence of periods (oligomenorrhea)
 - Failure to release eggs
- **Acne**
- **Hirsutism** (excessive hairiness on women in those parts where terminal hair usually does not occur)
- **Anovulatory infertility**

Treatment

While PCOS is not curable, there are several approaches to achieving hormonal balance. Symptoms of PCOS are treatable with medications, and changes in diet and exercise.

Specific treatment for PCOS will be determined by your doctor based on:

- Your age, overall health, and medical history
- Extent of the disorder
- Cause of the disorder
- Your signs and symptoms
- Your tolerance for specific medications, procedures, or therapies
- Expectations for the course of the disorder
- Your opinion or preference
- Treatment for PCOS also depends on whether or not a woman wants to become pregnant.

For women who don't want to become pregnant, treatment is focused on correcting the abnormal hormone levels, weight reduction, and managing cosmetic concerns.



Use medication to induce ovulation.

If you're trying to become pregnant, you may need a medication to induce ovulation.

- Clomiphene citrate is an oral anti-estrogen medication that you take in the first part of your menstrual cycle.
- If clomiphene citrate alone isn't effective, your doctor may add metformin to help induce ovulation.
- If you don't become pregnant using clomiphene and metformin, your doctor may recommend using gonadotropins — follicle-stimulating hormone (FSH) and luteinizing hormone (LH) medications that are administered by injection.

Metformin

Your doctor may prescribe metformin, an oral medication for type 2 diabetes

PCOS requires lifestyle changes, which include following a low fat, high fibre, low glycemic index, healthy eating plan, giving up smoking and regular physical activity.

that lowers insulin levels. This drug improves ovulation and leads to regular menstrual cycles. Metformin also slows the progression to type 2 diabetes, if you already have prediabetes, and aids in weight loss if you follow a diet and exercise program.

PCOS often requires lifestyle changes. These generally include following a low fat, high fibre, low glycemic index, healthy eating plan, giving up smoking and doing regular physical activity which can help with weight management and improve insulin sensitivity. A weight loss of as little as 5% can improve insulin levels, acne, ovulation, fertility and can help reduce excessive hair growth. 📺

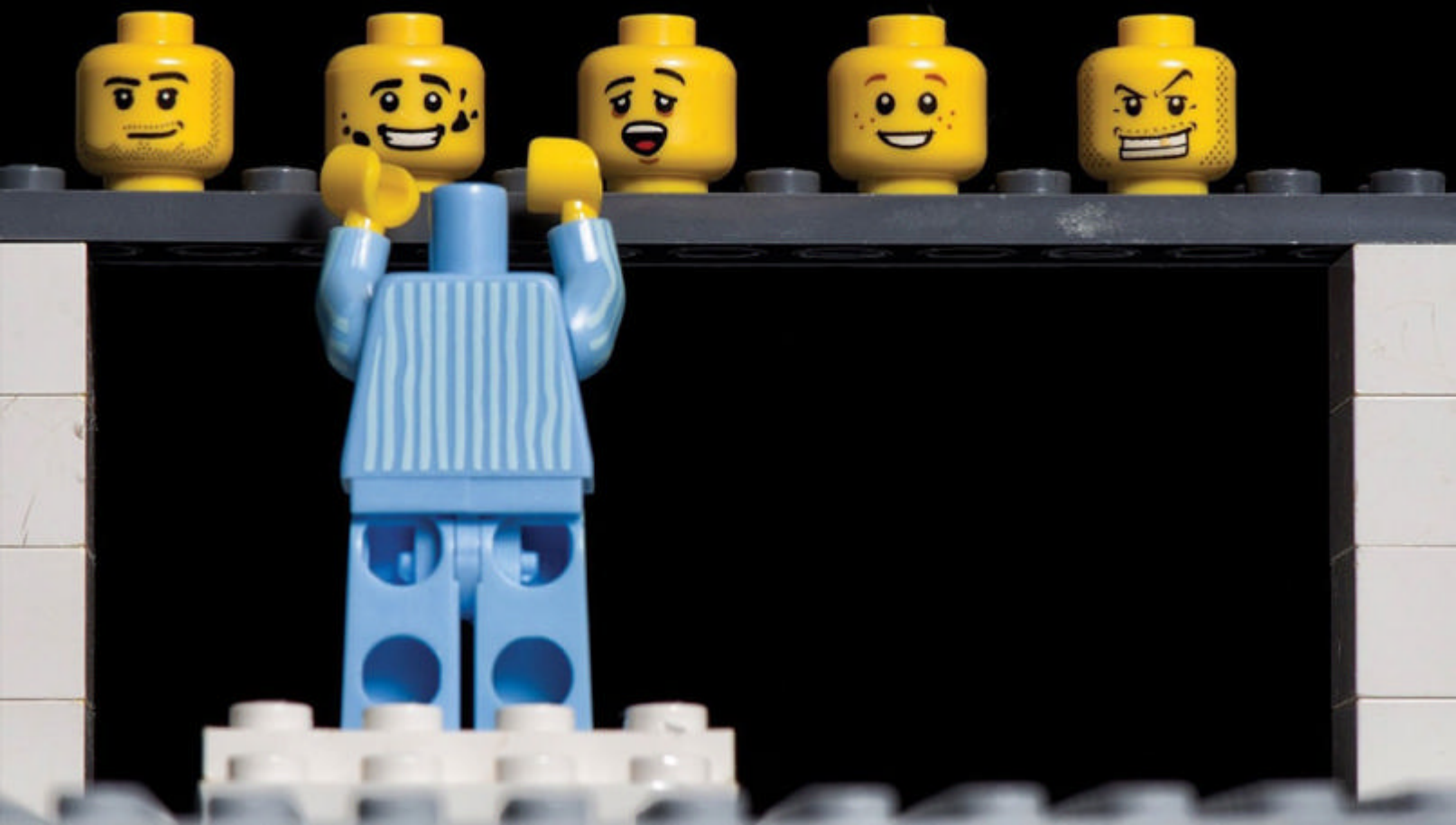
Shubhda Bhanot
Chief Nutritionist and Diabetes
Educator Medanta -The Medicity

living on a roller coaster

Bipolar mood disorder may become very stressful and frustrating if not diagnosed and worked upon. Learn more...

A few years ago, a 22-year old woman, a college student, was brought to our clinic by her parents for symptoms of altered behaviour. She was a bright, top-ranking and talented student who was usually happy, and generally calm and polite; but her behaviour had changed over the previous week. She suddenly seemed excessively cheerful all the time for no apparent reason, would talk excessively, was very energetic, didn't seem to need

much sleep, would wake up at 4 a.m. and start cooking and listening to loud music. She then started making unrealistic business and travel plans and started calling her friends in the middle of the night. She became very irritable, was shopping incessantly which was uncharacteristic of her, started driving rashly and became aggressive when stopped. This is when she was brought for a consultation and diagnosed with bipolar mood disorder.



What is Bipolar Mood Disorder?

Bipolar mood disorder includes a wide range of conditions that affect an individual's mood and behaviour and interfere with their daily functioning. Unlike unipolar depression, bipolar disorder is characterised by distinct manic or hypomanic episodes and also most often, depressive episodes. Symptoms of a manic episode include an elevated or irritable mood, greatly increased energy levels and activity, decreased need for sleep, inflated self-esteem, grandiose ideas, thinking too fast, talking too fast and excessively, getting distracted easily, with poor judgement, and often denial of their symptoms. Manic episodes may last for a week or more and are characteristic of Bipolar I Disorder. A less severe form of the illness is Bipolar II Disorder, in which intermittent episodes of hypomania occur (hypomanic episode is a less severe form of manic episode).

What causes Bipolar Mood Disorder?

Genetic factors play a major role, as bipolar disorder can be inherited. An imbalance in the levels of neurotransmitters (chemicals produced by brain cells or neurons) such as serotonin, norepinephrine and dopamine, or an altered sensitivity of



Genetic factors play a major role, as bipolar disorder can be inherited.

receptors on nerve cells can cause bipolar disorder. While stress can act as a trigger, it does not cause bipolar disorder.

Depressive episodes are highly prevalent during the course of bipolar disorder and are similar to those in

unipolar depression. A depressive episode is characterised by dullness of mood, loss of pleasure in previously pleasurable activities, low energy and activity levels, sleeping too much or too little, eating too much or too little, slowed thinking, impaired memory and concentration, self-blame and inappropriate guilt, hopelessness, recurrent thoughts of death and in more severe cases, even suicidal thoughts. The minimum duration of a depressive episode is two weeks, with significant interference in the individual's functioning.

Gender Dynamics

Approximately 3% to 4% of the world's population suffers from bipolar disorder. Severity of the illness ranges from mild to very punishing. Though, both men and women are affected by the condition, there are some differences in the way it is experienced by the two genders. Bipolar disorder is likely to start at an early age in women



as compared to men. Women are likely to experience more depressive rather than manic or hypomanic episodes through the course of the illness. They are also more likely to have a co-existing eating disorder, either anorexia nervosa, bulimia nervosa or binge eating disorder.

An important factor in understanding bipolar disorder among women is the influence of hormones on the illness and vice versa. For example, women with bipolar disorder are more likely to experience severe emotional disturbances and mood swings premenstrually, during menopause, during pregnancy, during infertility treatments and during post-partum periods (after childbirth).

If you are a woman experiencing mood swings and are wondering whether or not you have bipolar disorder, please note that having mood swings does not mean you are bipolar! Mood swings are normal to an extent, especially among women juggling too many things and trying to be superwomen (as always!). Bipolar disorder exhibits a cluster of symptoms and an adverse impact on functioning. So, a thorough evaluation is required for diagnosis.



Women with **bipolar disorder** are more likely to experience severe emotional disturbances premenstrually.



True Story

The young college student was started on medication, including mood stabilizers following her diagnosis. She took the medication diligently and followed up regularly with a family member over the next few months; she responded well to treatment. Psychotherapy was initiated at an appropriate time, with lifestyle modifications, including a healthy diet and a lot of exercise. A year later, she resumed her training in Indian classical dance, which she immensely enjoyed. She also took up painting, all the while continuing her medication and following up regularly. She was keen to pursue further studies abroad, which she did. She returned home after two years, set up her own business and got married. She had an extremely supportive family who always accompanied her for follow-up visits, monitored her medication and encouraged her to lead a balanced life.



The Diabetic Angle

Bipolar disorder has a serious impact not only on the individual's social and professional life but also on their physical health. It can trigger or worsen several medical conditions, including diabetes, which has emerged as a serious health risk for these individuals.


Recent research suggests that individuals with bipolar disorder are up to three times more likely to develop diabetes as compared to those without. Several factors may contribute to this: first, these individuals are more prone to weight gain because they often neglect their health due to the nature of their symptoms and adopt an unhealthy lifestyle. Second, most medications used to treat bipolar disorder can also cause weight gain. The excessive body fat causes hormonal imbalance and increases the risk of metabolic syndrome, which in turn increases the risk of diabetes. Third, there may be a common genetic link between bipolar

disorder and diabetes. Research is ongoing to investigate this further.

Individuals with bipolar disorder and diabetes, especially women, can have a more severe course of both their illnesses and face more challenges during treatment. A supportive family environment combined with appropriate treatment can significantly improve the outcome of both illnesses. Education regarding the illness and its management is important for both individuals and their families. It is important to always take the prescribed medication as advised and not experiment with it.

Maintaining a healthy, balanced diet and exercising regularly go a long way in keeping both illnesses in check. Stress levels must be kept in check to prevent relapses. An effective way to do this is to develop and nurture a hobby. One of my patients with bipolar disorder enjoys taking long walks and has formed a walking club, which has also become a support system for her. Another patient enjoys music and is

learning the guitar, yet another enjoys reading and has joined a book club. It is important to find your own passion or hobby, then follow and nurture it. It can bring tremendous joy and a sense of accomplishment.

The treatment outcome for bipolar disorder has improved significantly over the years. Fewer medications are now used, with better results. A state-of-the-art and effective treatment is Repetitive Transcranial Magnetic Stimulation (rTMS). It helps some individuals with bipolar disorder, especially bipolar depression. The first step, however, is to recognise the symptoms early and seek professional help. 



Dr. Shamsah B. Sonawalla,
M.D. Consultant Psychiatrist,
Jaslok Hospital & Research
Centre & TransMag Well-
Being Clinic; Mumbai;
Former Assistant Professor
Psychiatry, Harvard Medical
School, U.S.A.

heading to the hospital



Check off this list before you check in.

BY Winnie Yu

An admission to the hospital—whether for a planned procedure or an emergency—adds extra challenges to diabetes care. Illness, stress, or surgery, plus changes in eating and sleeping routines, can wreak havoc on blood glucose levels.

"Whatever you were doing at home probably will not work in the hospital," says Jane Jeffrie Seley, N.P., BC-ADM, CDE, a diabetes nurse practitioner at New York-Presbyterian Hospital/Weill Cornell Medical Center in New York City. That's why it's crucial to have a plan.

Hospital checklist

Every hospital has its own protocols for treating people with diabetes, and that may differ from what you normally do. Here's how to prepare for your diabetes management in the hospital:

☐ Get your blood glucose under control.

Marcie Draheim, R.N., CDE, former president of the American Association of Diabetes Educators, advises reining in blood sugars at least a month before a scheduled procedure. "It's not a good idea to come into surgery with high blood sugar," she says.

☐ Provide your recent A1C test results.

The A1C test reveals blood glucose control over the past two to three months. It also gives the hospital staff a better idea of how much insulin you'll require during your stay and any medications you might need when you go home. "I use it as an indicator of whether or not the diabetes treatment before the illness was working," Seley says. "If the A1C was elevated, above 7 percent on admission, then we need to provide a more aggressive regimen for home."

☐ Explain your symptoms of hypoglycemia, if you experience it.

Low blood glucose isn't a worry for every PWD, but if you tend to have frequent or severe lows, tell the staff. Describe signs of your lows—sweating, irritability, etc., or none. Some people prone to lows have no symptoms, especially if they've had diabetes for many years.

Glucose control in the ICU

People in intensive care units (ICUs) have benefited from recent scrutiny of blood glucose control guidelines. In early 2009, the NICE-SUGAR study (Normoglycemia in Intensive Care Evaluation—Survival Using Glucose Algorithm Regulation) found that patients with extremely tightly controlled glucose (80–110 mg/dl, for example) were more likely to have hypoglycemia or die than patients whose glucose levels were kept at 180 mg/dl or less.

"It turned out that very tight blood glucose control came at a cost, namely severely low blood sugar," says Robert Cuddihy, M.D., of the International Diabetes Center at Park Nicollet in St. Louis Park, Minnesota.

Most experts now recommend keeping glucose levels below 180 mg/dl for noncritically ill patients; the target range is 140–180 mg/dl for critically ill patients, who may be put on intravenous insulin therapy to stabilize blood glucose levels.

Share your preferences about your diabetes care with hospital staff—print this guide: DiabeticLivingOnline.com/care-sheet

☐ Know your medications.

Carry a complete list of the medications and supplements you take, including dosages and frequency. Alert your providers to any allergies or previous reactions to medications.

Your provider may advise you to temporarily stop taking some types of blood glucose-lowering medications while in the hospital to avoid conflicts with other treatments. Drugs that are filtered by the kidneys, such as metformin, may need to be discontinued for a time.

You may need to take insulin to control blood glucose during your stay because of changes in your normal regimen or because of added medications or procedures. Steroids, for example, can cause high blood glucose.

☐ Be prepared to use the hospital's monitoring supplies.

Hospitals need to know that the equipment used to measure blood glucose is accurate, safe, and clean. For quality control, a hospital should use its own meter and strips, says Robert Cuddihy, M.D., medical director of the International Diabetes Center at Park Nicollet in St. Louis Park, Minnesota.

☐ Make plans if you use an insulin pump.

Some hospitals welcome the use of a pump, but others don't. "You have to assume that most doctors and nurses don't know how to use a pump," Cuddihy says. "People with type 1 diabetes with good control need to ask: 'Will I be fully conscious? Can I regulate my pump at all times? What does the hospital allow?'" If you're in poor control, they will probably put you on injections of insulin. If you do want to use a pump—and you're able to manage it yourself or have caregivers who can—make sure to take plenty of supplies to the hospital.


☐ Enlist a certified diabetes educator (CDE).

Discuss your hospital stay with a CDE who already knows you. Or ask for one in the hospital to address questions that may arise during your stay.

☐ Take along a family member or friend to serve as your advocate.

That person should know your diabetes history, whether you take insulin or medications, your doctor's name, and your daily schedule (see "Caregiver's Cues," right).

☐ Alert the staff if you bring (or eat) your own food.

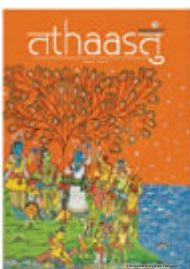
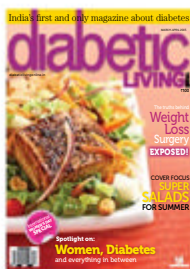
Hospital meals are often carefully measured, and insulin may be given accordingly. Tell the staff if you have your own glucose for treating low blood glucose; agree on who will treat any lows and how. 



Caregiver's cues

As an advocate for your loved one with diabetes, you may be the one communicating with hospital staff. "The family member is that extra pair of eyes and ears," says Jane Jeffrie Seley, N.P., BC-ADM, CDE, a diabetes nurse practitioner at New York-Presbyterian Hospital/Weill Cornell Medical Center in New York City. Be prepared by collecting the names and contact information of your loved one's health care providers. And make sure you can answer questions about these diabetes details:

- Type of diabetes
- Insulin (what kind, how it's administered, and how often)
- Other medication (types, doses, and frequency)
- Blood glucose (frequency and timing of self-checks and recent A1C levels)
- Existing diabetes complications
- Symptoms of hypoglycemia (low blood glucose)
- Other pre-existing medical conditions



A BESPOKE PUBLICATION

is synonymous with customised solutions with a far-reaching impact on the target readership apart from increasing brand loyalty and creating high levels of response

INCREASES BRAND LOYALTY

94% people claim they look forward to receiving a custom magazine and 62% recommend the title to a friend

CREATES HIGH LEVELS OF RESPONSE

almost 50% of custom magazine readers act or respond after each issue

GENERATES CONSUMER AWARENESS

Eight out of 10 consumers are aware of customised media either in print or on a digital platform

HAS A LONG-LASTING IMPACT

74% consumers say they are more informed about a brand/company through a collection of articles as opposed to an ad

REMEMBER!

A bespoke publication is not a brochure.

IT'S A MAGAZINE.

Not only this, we help create content and design, both in print & online, organise events, offer creative solutions & publish coffee table books

FOR INNOVATIVE BESPOKE PUBLISHING SOLUTION
Email us at: info@maxposure.in



Maxposure Media Group



India's largest in-flight magazine publisher* | Largest custom publishing company in India**

milk the goodness of dairy

Learn how to benefit from low-fat dairy foods and why some bacteria are good for you.

Studies have linked dairy foods to good bone health, better blood pressure, and protection from cancer. Newer research links the dairy-food connection to weight loss and diabetes prevention, and the advantages of probiotics, or good bacteria, found in cultured products. How much truth is there to these claims?

"Milk is a nutrient-dense food with a low glycemic index," says Ruth Litchfield, Ph.D., R.D., L.D., assistant

professor and extension service nutrition specialist at Iowa State University in Ames. Milk and yoghurt are rich in protein; vitamins A, D, B12, and riboflavin; and minerals that many adults are deficient in: calcium, magnesium, and potassium.

While there's no doubt about dairy's status as a nutrition superstar, the jury is still out on some of the more recently publicized benefits. Here's some help to sort it all out.



Fighting Diabetes?

Calcium and vitamin D may lower the risk of type 2 diabetes in people with pre-diabetes, says Anastassios Pittas, M.D., assistant professor of medicine in the Division of Endocrinology, Diabetes, Metabolism, and Molecular Medicine at Tufts University School of Medicine.

In a recent study, Pittas found that participants with pre-diabetes who took vitamin D (700 IU per day) and calcium (500 mg per day) for three years had a smaller rise in fasting blood glucose (0.4 mg/dl) compared with those who took a placebo pill. "Vitamin D and calcium may have direct effects on the pancreatic beta cells to enhance insulin secretion," Pittas says. "There may be beneficial effects on insulin resistance, but the mechanisms are not clear."

So if you have pre-diabetes, should you take calcium and vitamin D supplements? "It's premature to make a recommendation that people at risk of type 2 diabetes should take vitamin D and calcium," Pittas says. "I recommend the same as for most people— 800 IU of vitamin D and



1,200 mg of calcium. Natural sources are always preferable."

Weight Loss Aid?

In the past few years, low-fat and fat-free dairy foods have been tied to weight loss. "The research is still inconclusive at this time," Litchfield says. "The National Dairy Council has

discontinued marketing efforts that link consumption of dairy foods and weight loss."

Daily Dairy

Though it isn't proved that dairy foods can help you lose weight or lower your risk of type 2 diabetes, we do know they keep your gut

check the label

Check dairy labels for:

- ❖ **Fat-free or low-fat**

(1 percent): Products with less fat help you avoid artery-damaging saturated fat and cholesterol.

- ❖ **Serving size and total carbohydrates:**

Single servings of yogurt range from 4–8 ounces and 14–45 g carb. Look for low-fat light yogurts.

- ❖ **Calcium:** Choose products that have at least 20 percent of the recommended daily allowance per serving, or 200 mg.

- ❖ **Vitamin D:** Vitamin D is found in two forms in food and supplements: D3 and the less-potent D2. Milk is fortified with 100 IU of vitamin D3 per cup (25 percent of the Daily Value, 400 IU). Yoghurts vary from 20 to 100 IU. (Fortified soy milk contains D2.)





how much is enough?

Below are the recommended levels of calcium and vitamin D, based on the U.S. Department of Agriculture's Dietary Reference Intakes. Some researchers think the vitamin D levels are too low because research links the nutrient to cancer and diabetes protection, immunity, and bone health. If you need to consume more, limit your total vitamin D intake from food and supplements to 2,000 IU per day. (If you've had kidney stones, talk to your health-care provider before upping your vitamin D intake.)

Age (years)	Calcium (mg/day)	Vitamin D (IU/day)
19–50	1,000	200
51–70	1,200	400
> 70	1,200	600

Source: Food and Nutrition Board, Institute of Medicine.

healthy, your bones strong, and your blood pressure down. Those are reasons enough to include dairy in your daily food choices.

You should aim to consume three servings of dairy products a day, as recommended by the 2005 Dietary Guidelines for Americans, yet stay within your diabetes eating plan. "When selecting milk and yoghurt, your best choices will be products low in fat and made without added sugar," says Cris Glenn, R.D., CDE, of Iowa Health Systems' Diabetes Education Center in Des Moines. Try 1 cup of fat-free or 1 percent milk, or 6–8 ounces of nonfat plain or light yoghurt (60–90 calories).

Beneficial Bacteria

Probiotics (from the Greek word meaning 'for life') are in the spotlight: "Probiotics are beneficial bacteria that help to process our nutrients, produce important vitamins, support our immune system, and help keep our digestive tract healthy," Litchfield says.


dairy alternatives:

Dairy products are easy to add to your diet. However, if you dislike dairy products, can't tolerate them, or follow a vegan diet, you can get dairy's key nutrients from other foods, including:

- * dried beans and lentils
- * sardines and salmon (with the bones)
- * calcium-fortified soy foods, cereals, and juices
- * whole grains, fruits, and vegetables (especially dark leafy greens)
- * almonds



Good bacteria are added to pasteurised milk or cream to change some lactose (milk sugar) into lactic acid, giving these products a tangy taste, different texture, and health benefits. Yoghurt (containing *Lactobacillus bulgaricus* and *Streptococcus thermophilus*), acidophilus milk, and cultured buttermilk belong to this family.

Manufacturers may add additional good bacteria, such as *Lactobacillus* or *Bifidobacterium*, to yoghurt. Such probiotics may help lessen or prevent antibiotic-induced diarrhoea. They also may help people with lactose intolerance. Kefir, similar to yoghurt, is another cultured milk product rich in probiotics and often is recommended for those who experience heartburn, gastroesophageal reflux, and urinary tract yeast infections. 

Jo Cox promotes good nutrition at the Diabetes Education Center at Iowa Health Systems in Des Moines.



**Teen
Diabetes**

"There are no bad numbers. They're all good because they tell you what to do next..."

adolescence against diabetes

Lifestyle trends show that kids are growingly inclined towards unhealthy practices. But there are ways to keep diabetes at bay.



Symptoms

Type 2 diabetes can cause serious health complications. That is why it is very important to know how to spot type 2 diabetes symptoms. Even pre-diabetes can increase the chance of heart disease, just like type 1 or type 2 diabetes. The symptoms of type 2 diabetes due to high blood sugar may include:

- Increased thirst
- Increased hunger (especially after eating)
- Dry mouth
- Frequent urination
- Unexplained weight loss
- Fatigue
- Blurred vision
- Headaches
- Loss of consciousness (rare)

It's important to get a diabetes test done to prevent serious diabetes complications and start with a timely treatment. Type 2 diabetes is usually not diagnosed until health complications begin to surface. Most often, there are no diabetes symptoms or a very gradual development of the above symptoms of type 2 diabetes.

Prevention

Preventing diabetes in children is crucial as diabetes is not curable. It can only be controlled. Diabetes caused due to overweight in children and teenagers can be prevented mainly by bringing up kids in a healthy environment and inculcating good eating habits. Since young children pick up habits from their parents, it is important for parents to guide them and make them understand what is good and bad for them. Parents can take the following steps to lower chances of diabetes in children:

- Encourage the child to undertake at least 60 minutes of physical activity each day in intervals.
- Make meals and snacks that are healthy and taste good.
- Take your kids for grocery shopping. Teach them how to read food labels to help identify healthy foods.
- Limit portion sizes of foods high in fat, sugar and salt.
- Limit children's play time in front of the computer, tablets, smart phones, and TV to 2 hours per day, combined.
- Ask the doctor if your kids have an ideal weight and if they have a greater chance of getting type 2 diabetes.

Diabetes is fast growing to become a common chronic diseases in children and adolescents. When diabetes strikes during childhood, it is usually assumed to be type 1, or juvenile-onset diabetes. The body simply stops producing insulin and the child becomes dependent on an external source of insulin for the rest of his/her life. However, in the last two

decades, the trend of type 2 diabetes is also increasing among children and adolescents between the age group of 10-19 years, especially among children who are obese with a strong family history of type 2 diabetes. In type 2 diabetes, although the body does produce insulin, but due to various reasons such as obesity, physical inactivity or a poor diet, there is insulin resistance and

this results in building up of glucose up in the bloodstream. Eventually this glucose reaches dangerous levels. So the child has to depend on external sources of insulin for his entire life.

Risk Factors for diabetes

Overweight: Being overweight is a primary risk factor for type 2 diabetes in children. The more fatty tissue a

With fast food becoming a part of our daily diet, children **tend to skip out on a nutritious diet** and build very unhealthy eating habits.




child has, the more resistant his or her cells become to insulin. However, weight isn't the only factor in developing type 2 diabetes.

Family history of diabetes: The risk of type 2 diabetes significantly increases if a parent or sibling has type 2 diabetes — but it's difficult to tell if this is related to lifestyle, genetics or both.

Other problems with insulin resistance: Most people with type 2 diabetes in childhood are diagnosed at the start of puberty, a developmental stage where there's increased resistance.

However, out of these, the greatest risk of diabetes in children is excess weight. Once a child is overweight, the chances are two times more for the child to develop diabetes. Obesity in children is again related to changing lifestyle and food habits. Children today do not practice any physical activities and spend most of their time on laptops, tablets and phones. They do not play outdoor


games and prefer video games or portable indoor games, which make absolutely no contribution towards keeping their body active and fit. The less active a child is, the greater is his or her risk of developing type 2 diabetes. Physical activity helps a child control his or her weight, using glucose as energy, and making the body cells more responsive to insulin.

Additionally, with fast food becoming a part of our daily diet, children tend to skip out on a nutritious diet and build very unhealthy eating habits. Parents also keep busy and so give children a lot of ready to eat food instead of home cooked nutritious meals. These lifestyle changes, which are now becoming a way of life in India, are causing many lifestyle related diseases, even in children. 

Kanchan Naikawadi,
Founder Director & Preventive
Healthcare Specialist, Indus Health
Plus (P) Ltd.

braving the summer heat

Summers may cause a lot of problems for diabetics, but there are ways to stay fit when the mercury rises. As you bid adieu to winters, stay prepared to beat the heat...



As we progress towards the end of a spell of bone-chilling winters, the summer season awaits us with its searing heat and humidity. Soaring temperatures and the scorching heat are not only physically discomforting but also lead to a lot of cases like dehydration and heat strokes. As the temperatures rise, perspiration rates increase proportionately and if not compensated with adequate fluids, can not only cause fluid but also electrolyte loss which can prove to be fatal if not corrected on time.

Living with diabetes during the extreme heat in summers can be taxing if the patient is grabbed by heat exhaustion or dehydration. Uncontrolled blood glucose levels can

further increase this risk. Common symptoms like unusually excessive sweating, dizziness, muscle cramps, damp skin, headache, increased heart rate and nausea usually should serve as warning signs that need immediate attention. Summer heat is undoubtedly dangerous for everyone, but those with diabetes should pay extra attention to the dehydrating effect. Summer heat can quickly influence glucose levels, leading to erratic circumstances of either high blood sugar, causing episodes of hyperglycemia or triggering dangerous hypoglycemia. At times, excessive dehydration predisposes to diabetic complications such as ketoacidosis or hyperosmolarity and worsens them.

To make summers easy and bearable, all it requires is to observe some simple precautions

Staying hydrated. Drink plenty of water or sugar-free fluids. This will ensure that more blood flows through the kidneys, making them work efficiently. It also maintains adequate fluid and electrolyte balance in the body for their optimum functioning.

Alcohol is a strict no-no. Drinking cold beer and other alcoholic beverages can cause your body to lose fluids. This increases the risk of dehydration. Severe dehydration can be fatal, but is unlikely to occur in people with access to safe drinking water. Mild dehydration can occur if you are not drinking frequently and can result in heat exhaustion. Symptoms of heat exhaustion include light-headedness, dizziness, headache, muscle cramps, rapid heartbeat and can lead to nausea and vomiting. Treatment includes prompt recognition of the symptoms; stopping excess alcohol consumption; moving to a cooler environment as well as adequate rehydration with water or sugar-free drinks.

Keep the medications under proper care. Do this because extreme heat can affect medicines, insulin, glucometers and diabetes test strips by degrading them or causing chemical changes in them. While travelling, make sure your supplies are stuffed inside a cool box, but not in direct



An adequate water intake for men is roughly about **3 litres** of total beverages a day and for women is about **2.2 litres**.

contact with anything cold. Insulin especially should be kept in the fridge (side door alongside butter and eggs) between 2-8 degrees, but never in the freezer. Remember if insulin gets frozen, it should be discarded and not thawed and reused, as freezing causes its degradation.

Avoid the extreme daytime heat. Try to stay indoors if possible. As much as exercising is crucial for diabetes management and blood sugar control,

it is advisable to skip outdoor workouts or walks during the hottest part of the day. Instead, exercise either first thing in the morning or once the sun goes down in the evening.

Never ignore the signs of low blood sugar. Sometimes the symptoms of heat exhaustion resemble those of low blood sugar, or hypoglycemia, which includes sweating, light-headedness, instability, and confusion. One might confuse it with the after-effects of heat



without actually realising that this may be the blood sugar levels falling to dangerous levels. Therefore, always carry your glucometer if possible, along with some appropriate carbohydrate snacks and glucose tabs before leaving the house, for a quick treatment of hypoglycemia when the blood sugar level dips.

Get tested frequently. Blood sugar levels may fluctuate more often and accordingly the patient must adjust their necessary insulin doses and diet intake. Testing the glucose levels regularly, particularly if one is not feeling well, is a must. Take twice as many diabetes supplies with you any time you are going on vacation than you would normally need.

Avoid walking barefoot even in places of worship as reduced heat perception due to sensory diabetic neuropathy may lead to **burns in the soles.**

Mind the feet. Patients with both type-1 and type-2 diabetes are vulnerable to foot related problems. In summers, one gets tempted to walk barefoot indoors or to wear open sandals that expose the toes. One might notice cuts, scrapes, blisters or bruises by the end of the day. Never

ignore those foot injuries. Instead, get medical treatment as early as possible. Avoid walking barefoot even in places of worship as reduced heat perception due to sensory diabetic neuropathy may lead to burns in the soles which the patient may not even feel, especially in insensate feet.

Never skip meals. This is not a short cut to control blood sugar. It is advisable to plan frequent small meals rather than large meals that are far apart. One should make sure that the meals are healthy by keeping a track of their carbohydrate content. Low glycemic index foods and rich greens with lots of fibre are preferred. One needs to stay away from high calorie colas and canned juices, as besides natural sugars they also contain added sugar and preservatives. Avoid fruit juices as these are high in natural sugars. Choose a light lemonade or natural coconut water or cool vegetable juices. Feast on the variety of cold salads which are not only low in calories but also healthy and full of vitamins and minerals.

Summers should be greeted with open arms, where one can be more active and enjoy being outdoors. Heat waves present a big challenge for any and everyone, but a diabetic person becomes extremely vulnerable to the heat and humidity. Observing just a few easy precautions in daily life can ward off the heat related complications and risky situations. After all, summers are meant to chill out and have fun!! 🌞

Causes and Effects of Dehydration

ENVIRONMENTAL FACTORS

- Ambient air temperature & humidity
- Radiation from hot surfaces
- Outdoor exposure
- Confined spaces
- Lack of mobility and access to cooler environments
- Isolation from other people
- Strenuous work over prolonged periods

INDIVIDUAL FACTORS

- Lack of education about effective hydration and cooling
- Involuntary dehydration
- Older adults
- Existing co-morbidities in particular cardiovascular, respiratory and renal dysfunction
- Lack of acclimatisation

HYDRATION & COOLING

- No access to an adequate supply of water at regular intervals
- No use of electrolytes
- No access to shaded environments
- No Personal Protective Equipment that assists the body in cooling
- Unpalatability of fluids discouraging fluid consumption



Dr. Shalini Jaggi, Senior Consultant, Diabetology, Sri Balaji Action Medical Institute, New Delhi



plan ahead for SICK DAYS



Blood glucose can become more difficult to manage when you're ill. Knowing what to do in advance may help you recover faster.

Keeping your blood glucose under control means having routines and sticking to them.

You know what to eat and when to eat. You know how often to check your blood sugar and what to do if it's too high or too low. But when you get sick, everything changes.

Routine illnesses such as flu, sore throats, and stomach viruses can be especially challenging for people with diabetes. Even though you might not want to get out of bed to brush your teeth, you must stay on top of your blood glucose.

More is better

You might think that because you don't have an appetite and aren't eating as much as usual, you don't have to check your blood sugar as often or take your meds as regularly. But in fact, just the opposite is true.

"Any illness creates stress in the body as it tries to get rid of infection," says Fernando Ovalle, M.D., an endocrinologist at the University of Alabama at Birmingham School of Medicine. "This can increase levels of certain hormones, which can in turn cause an increase in glucose levels, even if you aren't eating very much," he says.

On top of that, when you are ill—especially if you have a fever—judging your blood glucose levels based on how you feel can be difficult. Angela Gaskins-Younger of Branford, Connecticut, who has had type 2 diabetes since 1993, learned this the scary way. Angela, 50, knew she was coming down with something; she had a fever and wasn't feeling good. She checked her blood glucose and it was high, so she took some rapid-acting insulin. But she took too much.

Soon she began to feel shaky and sweaty, which are symptoms of low blood glucose.

"I wasn't sure if the shakiness and the sweating were due to the fever or my blood sugar being too low," Angela says. "I just couldn't think clearly." Fortunately, she soon managed to get her glucose under control without a 911 call.

"Now I keep a blood glucose meter, glucose tablets, and a box of juice right by the bed," Angela says.

Keep one word in mind: **more.**

More glucose checks, fluids, and sometimes more blood glucose-lowering medication.

Joyce Lekarczyk, RN, CDE, clinical education program manager at the Joslin Diabetes Center in Boston, advises keeping one word in mind when you are sick: more. More blood glucose checks, more fluids, and sometimes more medication.

"Even if you take one or more pills, you may have to take on insulin temporarily," she says.

Don't wait until you are sick to prepare for those sick days. Talk with your health care provider and make a game plan today. With a little planning and extra care, routine illnesses will stay just that—routine.



Turn the page for a checklist on how to manage illness and diabetes.



Sick-Day Basics

What to Eat

- If possible, eat the amount of carbohydrate you usually need. If you have no appetite, diabetes educator Joyce Lekarczyk recommends substituting drinks that have the same carb values as foods you typically eat.
- If you can't keep food down, drink plenty of caffeine-free, sugar-free fluids to help you stay hydrated. Aim for about 1 cup of liquid every hour. Or alternate sugar-free drinks one hour with sweetened beverages the next. If you can't keep down fluids, try ice pops or ice chips.



Supplies You Will Need

Illness is unexpected, so try to keep some of these items on hand.

- Sugar-free and regularly sweetened gelatin and ice pops
- Sugar-free and regularly sweetened sodas
- Broth packets
- Foods that can substitute for the carbohydrate content of your regular eating plan, such as applesauce, sherbet, and juice boxes
- Telephone numbers of your health care providers and friends and relatives who live nearby
- Sugar-free, over-the-counter medications for cough, flu, and diarrhea. Some OTC medications, such as Sudafed, can raise blood glucose, Lekarczyk says, so ask your health care provider for recommendations.



Call Your Doctor If ...

- Your blood glucose is higher than 250 mg/dl for more than two readings.
- You have persistent nausea, vomiting, and/or diarrhea.
- Your glucose readings are consistently low.
- You are at all unsure of what to do.

What to Take

- Check your glucose at least four times a day during mild illnesses, and every three to four hours during more serious illnesses. If you have any doubts about what to do, call your health care provider.
- Take your usual blood glucose-lowering medications unless instructed otherwise. If you think you might need to increase your dosage, call your health care provider.
- If you take metformin and are vomiting, wait to take your metformin until you can keep down food and liquids. Be sure to alert your health care provider.
- If you take insulin, you probably will need the full daily dose. If you have questions about how much insulin to take, call your health care provider.



control on the go

Pack these practical self-care tips in
with your suitcase.

By Janice Baker, R.D., CDE, CNSC
Illustration by Gwenda Kaczor

Summertime travel is a fun break in daily routine, but it also can hijack healthful habits. These tips will help you maintain your momentum toward your weight and diabetes management goals:

1. Stay close to the action.

If you're staying at a hotel, choose one that has exercise facilities. Check out the gym area as soon as you arrive so you can establish the get-moving mind-set. If your lodging lacks a workout area, inquire about safe walking routes or local gyms that sell day passes. If you're visiting friends or relatives, invite them to join you for some quality time exercising together.

2. Pack like you mean it.

Tuck in your exercise clothes—no excuses! Include resistance bands, which you can use nearly anywhere. Resistance exercises build muscle, which helps to regulate blood sugar levels, especially after meals.

3. Start each day right.

Starting your day with physical activity will help you wake up and won't interfere with the rest of your plans. To help you get moving, sleep in your exercise clothes and set out your shoes and socks.

4. Bring healthful food.

Treat each travel day as if there will be no place to buy food. Pack a cooler with a sandwich made with high-fibre bread, nut butter, and fruit spread; fresh fruit; string cheese sticks; bags of ready-to-eat baby carrots; and drink containers filled with water or antioxidant-rich black or green tea. Bonus: You'll save money for souvenirs by avoiding fast food and takeout! 🍷



Janice Baker, a registered dietitian and certified diabetes educator in San Diego, has worked extensively with people living with diabetes.



facing diabetes together

Help your loved one live successfully with diabetes—without harming your relationship or compromising your own health.

As a diabetes professional, Lynn Sutton, R.D., CDE, knows all too well the challenges and complications of the disease. When her husband, Terry, 55, was diagnosed with type 2 diabetes more than three years ago, Lynn was shocked and tried to share her knowledge with him. “I felt responsible for his health,” says Lynn, 50, of Bethlehem, New York. “I kept wondering how I could have a husband with such high blood glucose.”

But what Lynn perceived as being helpful—offering education and information—Terry saw as nagging. Some nights, Lynn would come home to find empty fast-food french fry boxes and potato chip tubes. That’s when she began taking a more subtle approach. She

stopped talking about how Terry was handling his diabetes and simply began buying more healthful foods.

A partner's fear and worry about a loved one who has diabetes can easily be translated into criticism and nagging, which puts everyone on the defensive. The result is a contentious relationship where genuine concerns go ignored.

"Being diagnosed with diabetes puts a person in the stages of grief, but caregivers often go through those stages, too," says Liz Bello, R.D., L.D., CDE, director of diabetes education at Diabetes America. "Sometimes people with diabetes take their condition in stride, while it's the caregivers who take longer to cope."

One study found partners of people with type 2 diabetes had the same levels of depression and anxiety as their loved ones with the condition.



"I'll always be there to answer his questions or help with food choices, but I'm not letting his diabetes be my challenge anymore."

—Lynn Sutton, married to Terry, who has type 2 diabetes

Alert: Know these signs

When caring for someone with diabetes, you should be familiar with three medical problems that can affect your loved one, says Sethu Reddy, M.D., author of *Type II Diabetes: A Cleveland Clinic Guide* (Cleveland Clinic Press, 2007).

High blood glucose (hyperglycemia)

POSSIBLE SYMPTOMS: Frequent urination, fatigue, increased thirst, weight loss, irritable mood.

WHAT YOU CAN DO: Encourage your loved one to check in with a doctor about medication levels, exercise, and food intake. If a person with type 1 has blood glucose above 240 mg/dl, check the urine for ketones, which could signal ketoacidosis, a potentially life-threatening condition.

Low blood glucose (hypoglycemia)

POSSIBLE SYMPTOMS: Shakiness, dizziness, sweating, hunger, headaches, confusion, moodiness, blood glucose under 70 mg/dl.

WHAT YOU CAN DO: Offer three glucose tablets, 1/2 cup of fruit juice, or 1 cup of milk. Wait for 15 minutes, then test his or her blood glucose level. If blood glucose has not reached the 80–120 mg/dl range, repeat the glucose or drink and retest.

Depression

POSSIBLE SYMPTOMS: Pervasive sadness, lack of drive, interrupted sleep, irritable mood, passive attitude.

WHAT YOU CAN DO: Encourage your loved one to seek treatment for depression. People with depression are less likely to take care of themselves and more likely to struggle with diet, exercise, and glucose control.

Who's in the Driver's Seat?

One of a partner's biggest frustrations may be lack of control, which can cause constant worry over daily issues. Is your loved one eating too many carbs? Did he take his medication? Is she getting enough exercise? Will he go blind someday?

Accepting the reality that you can't control what someone else does is a difficult hurdle for many. "People will only do what they're motivated to do," says Richard Rubin, Ph.D., president of health care and education for the American Diabetes Association and associate professor of medicine and paediatrics at Johns Hopkins School of Medicine in Baltimore. "The fact is, people make decisions all the time that directly affect their blood glucose. To exercise or not exercise. To eat or not eat. To sleep or not sleep. That means there will be times when you see loved ones not doing the right things."

Rubin recommends that caregivers let go of the notion that their loved

ones with diabetes will always make the right choices. "Perfection is something that lasts for a moment, but diabetes lasts for a lifetime," he says. "What you want is for your loved one to be in good health in general."

Transferring Responsibility

The turning point for Lynn and Terry occurred when Terry attended a seminar that Lynn was presenting on diabetes management. "He looked at me after the workshop and said, 'You're really good. You know what you're talking about,'" Lynn says. "It was strange because I'd been saying most of it to him for a long time."

For the past couple of years, Terry has been changing his dietary habits. He now buys whole wheat pasta and has stopped patronising fast-food restaurants. He has given up smoking and in exchange has taken up biking and hiking. In addition, Terry has been reading more about his



"You want to be a good diabetes collaborator, not a controller or a dictator. Remember, there's a thing called boundaries."

—Lawrence Fisher, professor of family and community medicine



condition in magazines and newspapers. "Letting it be Terry's diabetes and not mine has been very helpful to me," Lynn says. "I'll always be there to answer his questions or help with food choices, but I'm not letting his diabetes be my challenge anymore."

Helpful Involvement

To discern how your loved one is doing, Rubin recommends asking about his or her A1C level and taking an honest assessment of your day-to-day lives. If the A1C is below 7 percent and your loved one is enjoying life, then it's time to relax a little. But if your loved one's A1C is high and his or her health is poor, then offer to work together to find the right motivation to improve it. "Say, 'I want you to be around for as long as me, and sometimes I see you doing things that won't help that

Discussing the Issues

As with any issue between two people, open and honest communication is the secret. When a young child has diabetes, a parent can more easily direct self-care. But when it's a teen, a spouse, or an elderly parent, communication can become tricky.

"Diabetes is often the elephant in the room that no one wants to talk about," says Lawrence Fisher, Ph.D., professor of family and community medicine at the University of California, San Francisco. "But couples who can engage, collaborate, and problem-solve have the best chance of being successful. These couples can develop a solution together and be mutually supportive."

Phrasing the Conversation

To open the lines of communication, express your heartfelt concerns honestly to your loved one. "Behind that intrusive quality is often a real concern or worry," Fisher says. "Sharing those concerns and expressing your feelings can lay the groundwork for a kinder and gentler dialogue."

Next, ask the person with diabetes exactly what you can do to help make the condition easier to manage. Maybe it's going for a

walk together every night, making doctor appointments, or offering reminders to monitor blood glucose. "Every person is different," Bello says. "You'll get those who say, 'Don't make me anything special,' and those who say, 'I need special foods.'" Back off if asked to do so. But check later to see if there is a change of heart.

If you have difficulties communicating, consider talking to a family counsellor. "Sometimes just two or three sessions can increase the capacity for conversations," Bello says. Look for a

counsellor who works with others who have chronic diseases.

Finally, watch your own behaviours for any action that could be construed as intrusive, such as asking to see your partner's blood glucose meter or wincing when he or she reaches for dessert. The key is learning how to provide the support your loved one needs without turning into the "diabetes cop." "You want to be a good diabetes collaborator, not a controller or a dictator," Fisher says. "Remember, there's a thing called boundaries."



"Diabetes is often the **elephant in the room** that no one wants to talk about. But couples who can engage, collaborate, and problem-solve have the best chance of being successful."

—Lawrence Fisher, professor of family and community medicine

happen," Rubin says. "Then tell him or her that you know how difficult it is."

The goal is to encourage your loved one to do better, not to nag about it. "Encouraging by nagging will have two bad outcomes," Rubin says. "You won't get the action you want, and the constant stream of advice will negatively impact your relationship."

10 ways to care for both of you

A little support goes a long way when someone you love has diabetes. Here are some ways to stay connected:

1. Learn as much as you can about diabetes.
2. Attend a support group with your loved one, preferably one that invites caregivers.
3. Go along to doctor appointments, as long as you're welcome.
4. Help to maintain a medical file with information about doctor visits, including dates, medications, and test results.
5. Talk openly and honestly about your fears and concerns.
6. Avoid nagging or making negative comments or gestures.
7. Join your loved one in eating healthfully and exercising regularly. The habits needed for managing diabetes can benefit the entire family.
8. Create goals and rewards you can enjoy together. For instance, aim to walk three times a week, then reward yourselves with a night at the movies.
9. Make sure your home is safe and enables self-care if your loved one has physical limitations.
10. Enlist the help of other family members or friends to give you an occasional well-deserved break.



Taking Care of Yourself

A big hazard of being a caregiver is overlooking your own needs. Your loved one may need special attention, but you also must eat well, exercise, and get enough rest. Ideally, you'll both eat healthful meals and exercise regularly together. But if you

can't convince your loved one to leave the couch, you can still tend to your health.

You also need ways to alleviate the stress of looking after a loved one with diabetes. "I find type 1 diabetes requires constant vigilance," says Nancy Berkeley, 50, of Walpole,


Massachusetts, whose 16- and 14-year-old children have type 1 diabetes. "There are no vacations."

Nancy has found comfort by volunteering with the Juvenile Diabetes Research Foundation's (JDRF) local chapter, where she's met other parents who are facing the same issues. "Other diabetes moms and dads have been the saving grace, especially in the beginning when all of this was so new and scary," she says.

Adopting diabetes as a fund-raising cause can help. Jennifer Sadera, 44, of Central Valley, New York, says she felt empowered when she started raising money for the JDRF. Jennifer and her two children with diabetes, now 16 and 12, have raised about \$20,000. "You feel like you're making a real difference," she says.

Others find support in their faith. For Sherry Gard, 56, of San Juan Capistrano, California, turning to a higher power has helped her deal with the frustrations and sadness over her husband Don's battle with diabetes, which has been complicated by amputation, blindness, and neuropathy. "My faith is what makes my life better," she says. "I know he won't have to suffer from this forever."

In It Together

Even when just one family member has diabetes, managing the condition is a team project. "Anything that's a challenge can either push you apart or bring you together," Rubin says. "When people join forces on this, they can become closer than they've ever been before. The goal is to switch the situation from one that's full of tension and turmoil to one that involves working together." 

Winnie Yu is a freelance health writer and coauthor of the book *What to Do When the Doctor Says It's Diabetes* (Fair Winds Press, 2004).



INDIA'S FIRST AND ONLY MAGAZINE ABOUT DIABETES

ALSO AVAILABLE ON



diabeticlivingonline.in/apple

POWERED BY



diabeticlivingonline.in/zinio

diabeticlivingonline.in/magzter



MaXposure Media Group



enjoy your workout with POUND

Named as one of the top five workouts in the US, let's try POUND — a fusion of Pilates, isometric movements, plyometric and yoga-based poses, blended into a 45-minute, fat-burning cardio workout.

These days due to faulty lifestyle, many health-related problems are on the rise. Thirty year olds or even less are suffering from major heart attacks, diabetes and rise in cholesterol. Whether you are working or staying at home, keeping yourself fit is very important. Thankfully, nowadays, there are many fitness programmes to choose from, as per your personality. Earlier, fitness was a much dreaded word because it meant long hours of exercises on a machine or in the gym. Now with the advent of Jumba, Aerobics,

POUND, and Spinning, fitness has entered into a new and interesting realm. The best part is, some of the regimes can be followed for losing weight from a particular part of body. In addition to this, a combination of these workouts cut the monotony and keep the enthusiasm level high. The latest to enter the arena is POUND, a western import. It is named one of the top five workouts in US.

It was developed by fitness pioneers Kirsten Potenza and Cristina Peerenboom. POUND is a full body session that fuses

Pilates, isometric movements, plyometric and yoga-based poses into a 45-minute, fat-burning cardio workout. It also gives the excitement of drumming. The drum sticks used during the workout are light weighted and called Ripstix™. Frequent sessions of POUND will give the body a beautiful shape and posture, apart from burning calories, isolating core muscles and strengthening coordination and balance.

A well balanced fitness plan should incorporate cardiovascular fitness, muscle strength and

endurance, core strengthening, flexibility and balance. We have to understand that cardio workouts are very important to prevent early onset of conditions such as diabetes, blood pressure, other heart-related disorders, hormonal-imbalances, obesity or simply to lose weight. Ideally, it is recommended that every person should get at least 30 minutes of cardio activity on most days of the week.

POUND combines easy to follow and not complex cardio moves with strength training and drumming. This combo works the entire body, raises the heart rate to a fat-burning zone, and forces each move to be as precise as a basic beat. The music used during pound follows a particular rhythm, which helps the body in responding better.

POUND contains four full length 20-minute workout sessions. They can be stand-alone or can be combined together, depending on the person. It is always advised to create a longer and a more challenging workout session. The initial 20-minute workout is called 'Opener', a comprehensive warm-up that gets your heart, muscles and Ripstix™ ready to rock. The thing to be noted is that each workout should end with a cool-down session, designed to stretch the muscles which are used during the session.

Ideally, a session burns between 400 and 900+ calories per hour. The biggest advantage of this session is, it also strengthens and sculpts lesser used muscles. The session is supported by music, so not even for a minute monotony or boredom creeps in. Though POUND DVDs are widely available, but still, one can create his/her own music bank for these sessions.

The advantage of going for POUND DVDs is that each 2-4 minute song is carefully calibrated with interval peaks and extended fat burning sequences, providing



POUND combines easy to follow and not complex **cardio moves** with strength training and drumming.

you with the best workout in the shortest span of time. In a 45-minute track, one has to perform 15,000 reps, performed over 30 extended interval peaks, and zipped through over 70 techniques without even realising it.

Another very interesting aspect of this workout is that it can be easily done within the confines of your own home. You need to have an ear for music and a good collection.

The most important point behind the success of any fitness regime is, it has to become a part of your

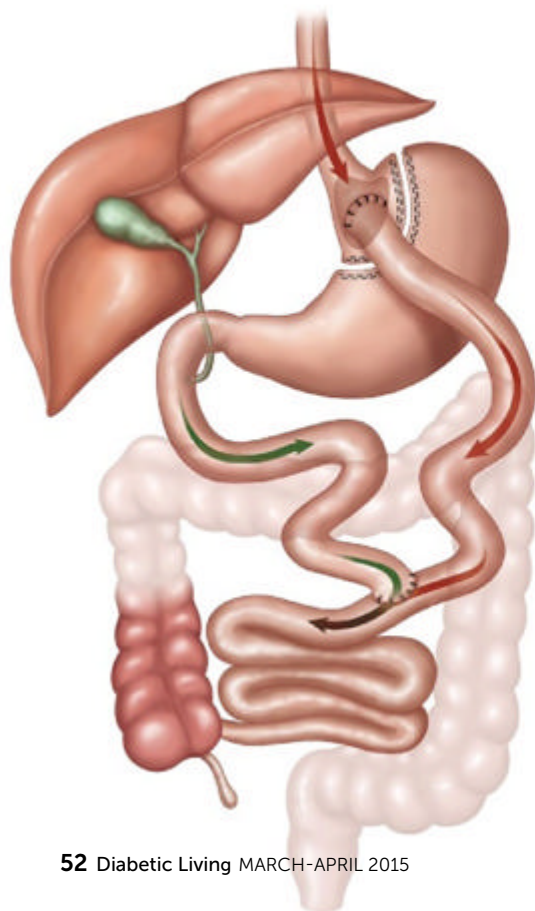
lifestyle. POUND is an easy routine to stick with, since it yields fast results, it's fun, and it lets you Rock out while you work out. POUND goers have also vouched for its stress relief ability.

One can have these POUND sessions in-home, in-gym, outdoors, or while travelling. These sessions inspire confidence, self-esteem and freedom from stress. 🎧

 **Swati Chatterjee** Director, RDX Gym and Spa, New Delhi

Bariatric surgery, more commonly known as weight loss surgery, is a subject which invokes multiple speculations. Read on to learn about it from an expert.

weight loss surgery: myths and facts



Weight loss surgery always remains hot in the news. In my line of work, I often field questions from patients, neighbours, concerned relatives and strangers, and it never ceases to amaze me how little people understand about bariatric (weight loss) surgery. In this column, I have busted the common misconceptions about this type of surgery

Weight loss surgery helps people shed those extra 20 kilos.

Many people don't realise that gastric banding, sleeve gastrectomy and gastric bypass are not cosmetic procedures to be taken as lightly or performed as frequently as Botox or a nose job. Weight loss surgery is a definitive and final step for people weighing at least 40Kgs over their ideal body weight. These people

have a BMI of 32.5 to 37 or higher, and have unsuccessfully tried many a fad diets, taken so called "weight reducing pills" and attempted other means of weight loss. There is consideration, conversation and qualification before a procedure. After the operation, patients must keep to a rigorous follow-up schedule. People who are 10-15 kilos overweight have a host of tools and approaches available to them that can assist them in regaining health, managing their appetite and keeping weight off.

Obese people have to undergo surgery because they are lazy.

On a personal level, this misperception annoys me the most. By the time these people come to my outpatient clinic, they have tried every diet available. They have

Can diabetes actually be cured with surgery?



Contrary to popular belief, diabetes can be cured! And it's not just me saying it's curable. If we actually go through literature and see few of the governing bodies of the world, namely IDF (International Diabetic Federation), AHA (American Heart Association), ADA (American Diabetology Association), we learn that large number of patients suffering with Diabetes can actually be cured of the disease once they undergo Metabolic or Bariatric surgery. So, in today's era, Diabetes is curable but this does not mean that all Diabetics would be cured. Majority of them would certainly benefit from this surgery. In other words, even if you can postpone the effects of diabetes on your heart, lungs, or on your eyes for about 10 to 15 years, I think we have done a job well!

suffered immense social, emotional and psychological stress, and they want nothing more than to rid themselves of the excess body weight they carry. Due to an individualised interplay among genetics, environment and behaviour, these patients have realised that their best chance of living a normal life is to resort to a band, sleeve or bypass.

It's Dangerous!

As part of my job, I literally get inside of people and either reroute their digestive tracts or slip a lap band over

The risk of a bariatric surgery is in line with that of having one's gall-bladder removed.

the top of their stomachs. Sounds dangerous, right? As with any surgery, weight loss surgery carries risks. But modern technology has made bariatric procedures relatively safer. In a study of 66,000 obese people over five years, those who chose to have a bariatric surgery lived longer than those who did nothing. It has been shown repeatedly that it's far more dangerous to live life morbidly obese than to undergo a bariatric procedure. I'll put it in perspective: In most programmes, the risk of a bariatric surgery is in line with the risk of having one's gallbladder removed.

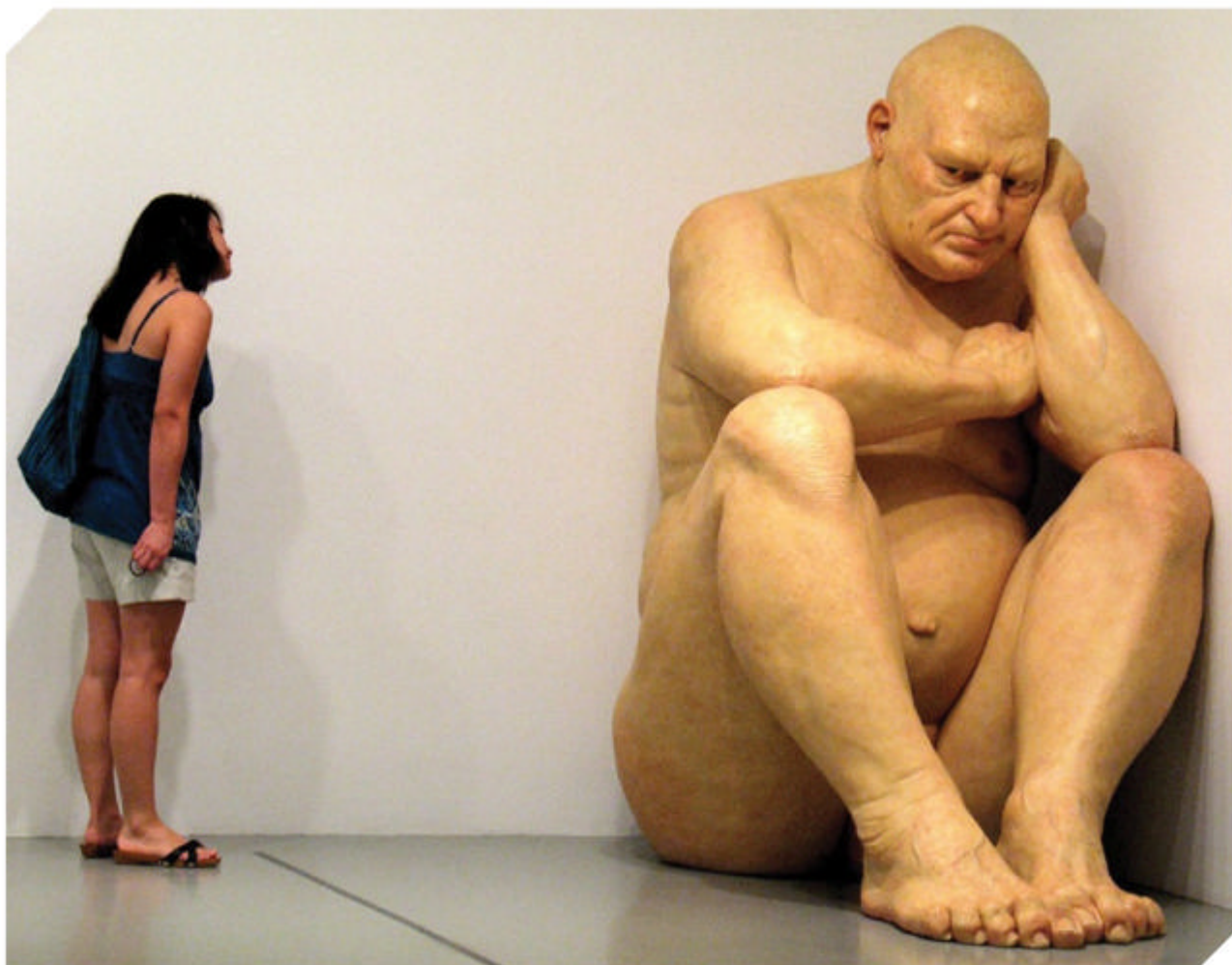
You can't get pregnant after weight loss surgery.

Many patients have trouble getting pregnant prior to surgery and find that they're very fertile following the surgery. This is good news if you want to have children — or it may be bad news if you don't!

Contrary to popular belief, pregnancy following weight loss surgery is very much possible.

CAN IT ALSO BE OFFERED TO PATIENTS WITH TYPE I DIABETES?

I'm afraid at this point of time we don't have enough studies to suggest that Type I patients would also be benefitted out of this surgery, because Type I Diabetes has a different pathology altogether. However, in very few centres around the world, reports have come in that patients associated with Type I Diabetes, and are also morbidly obese, may have a better glucose control and better Diabetic control once they get a Metabolic or Bariatric surgery. So, primarily it can't be a cure for them.



Men and women who are
morbidly obese deal every
 single day with deep, core issues of
 self-esteem and pride.

Patients are much less at risk during pregnancy because their other health problems have lessened or disappeared. After your weight is back to normal, and assuming you don't have any other health problems, you can expect to have a normal delivery.

If you're a woman of childbearing age, use two forms of birth control for one year following surgery. During that first year, you aren't eating enough to nourish yourself,

not to mention a growing foetus, so you don't want to get pregnant then. Besides, you want to concentrate on your own weight loss during that first year. Better safe than sorry.

You'll never be able to enjoy a real meal again OR Now you can eat everything you want!

Patients who undergo bariatric surgery can, in fact, celebrate their birthday with a little cake, they just can't eat the whole thing anymore!

People learn new, reasonable, healthy eating behaviours. Trying to eat too much at one time would make it hard to keep the food down. With those caveats, a person can live an unrestricted life following surgery. They can go out to restaurants, take a cooking class and host a family dinner!

Bariatric patients undergoing surgery have a very restricted lifestyle.

Bariatric surgery has a significant impact on the patient's personal life. Men and women who are morbidly obese deal every single day with deep, core issues of self-esteem and pride. For example, there are physical repercussions of being so overweight (like, inability to control the bladder) that can be embarrassing, if not

humiliating. Bariatric surgery can help restore dignity. About sixty percent of my patients are women. Many obese women have suffered not only emotional abuse because of their weight, but actual physical abuse as well, perpetrated by our society that didn't respect them and convinced them that they were unworthy of love and affection. Dramatic weight loss over time often brings these women a new self-confidence and a new beginning to a more fruitful life.

What is the difference between bariatric & metabolic surgery?

Though, there is a large amount of overlapping between Bariatric and Metabolic surgery, however, all Bariatric procedures can also be called Metabolic procedures because the word metabolic says that it changes your metabolism. So, what happens in a Bariatric surgery? It can be divided primarily into three limbs--- One, Surgery done for morbidly obese patients who do not have any associated co-morbidities such as diabetes, hypertension, etc. The second limb would consist of patients who have obesity which is related with

diabetes, and other co-morbidities like hypertension, heart problems, kidney problems, etc. And the third limb would consist of patients who have diabetes only, without any associated obesity. So Bariatric surgery is primarily done for patients who are obese or have related diseases like

diabetes and hypertension. Whereas, Metabolic surgery for diabetics would encompass purely surgery done for patients with diabetes without associated obesity.

Does it mean that all Diabetic patients should go under the knife and get the surgery done?

Absolutely NOT! There have been strict guidelines and criteria to choose a patient who would benefit from this surgery. So, based on individual cases, we decide which patient will benefit from it. However, broadly speaking, patients who have Diabetes for less than a duration of 10 years, or those who have not been Insulin dependent for a long time or those who do not have involvement of more than 2 organs have a much better chance of getting a resolution in terms of Diabetes. But an individual study of cases can speak best. 🍷

Dr. Atul Peters, Director, Institute of Bariatric, Metabolic and Minimal Access Surgery, Fortis Hospital



Weight Loss Surgery is a tool, not a magic pill. Patients get as much out of it as they're willing to put in. If they treat it with respect, it will do them well for the rest of their lives; lives they might not even be living if they hadn't had the surgery. Bariatric surgery can provide an opportunity to do something. It can help put together lives that have been broken down by obesity.



tenets

for a diabetic free life

India's well known fitness guru shares insights on how to stay fit despite a tag of diabetes on your sleeve. Learn these simple and effective ways to beat diabetes on a daily basis.

A lifestyle disease called Diabetes continues to baffle the medical fraternity. Most people who have diabetes are unaware of it till it strikes them hard. For this reason, Diabetes is often called a silent killer. Diabetes results from the production of insufficient quantities of insulin by the pancreas. Without insulin, the body cannot utilise glucose, thus creating a high level of glucose in the blood and low level of glucose absorption.

Smaller meals must be consumed at regular intervals



Warning signs of diabetes

There are certain warning signs that alert us about the presence of diabetes:

- Frequent urination
- Excessive thirst
- Extreme hunger
- Sudden weight loss
- Weakness, drowsiness or fatigue
- Tingling numbness in the limbs
- Irritability
- Wounds that heal slowly
- Sudden vision change or blurred vision

There are serious long term complications if this condition is ignored. They include cardiovascular diseases, hypertension, chronic renal failure and diabetic retinopathy. Acute complications include hypoglycemia (diminished content of glucose in blood that can cause seizures, brain damage and death), diabetic ketoneuria (ketones are fat metabolism end products), and coma.



Skipping a meal after insulin or anti diabetic drugs may result in **hypoglycemia**. If its symptoms show, immediately consume **sugar**.

Dietary changes

One can reverse diabetes by reversing the trend of increasing weight. Therefore, it is important to follow a regular meal pattern.

- Consume small frequent meals. The gap between two meals, however, should not exceed 3-4 hours in order to maintain blood glucose levels.
- Make proper food choices while eating out. Avoid junk food and empty calories, like burgers, pizzas, alcohol, cola drinks, etc.
- Avoid food with high glycemic indexes (foods that affect blood sugar & insulin levels), like white breads, desserts, fried foods, dairy products, etc
- Do not skip a meal after insulin or anti diabetic drugs. This may result in hypoglycemia. If hypoglycemic symptoms occur (e.g. hunger, sweating, trembling, dizziness, palpitation, weakness, headache, restlessness) immediately eat some quantity of sugar or jaggery. Follow it with a small snack, like a sandwich, a fruit or low fat biscuits.
- Do not fast or feast.
- Avoid alcohol and smoking. Diabetics who smoke are at higher risk for kidney damage, heart disease, and other diabetes-linked problems.

Categories of Diabetes

1. Type 1 diabetes, also known as juvenile onset diabetes, mostly occurs in children from 10-16 years or young adults. The symptoms of type 1 diabetes include abnormal thirst, nausea, vomiting, frequent urination and excessive hunger. People suffering from this type of diabetes need to take a daily dose of insulin. Type 1 diabetes is also known as Insulin Dependent Diabetes.

2. Type 2 diabetes is a more common form of diabetes. It results from gradual loss of body's ability to make or to properly utilise insulin. It is also called adult onset diabetes or non insulin dependent diabetes. Erratic eating habits, work related stress, lack of exercise/activity and obesity are the primary reasons for Type 2 diabetes.

3. Gestational diabetes occurs during pregnancy and disappears after pregnancy. However it tends to lead to the later development of type 2 diabetes.



OPTIONS FOR EXERCISES ARE PLENTY.

The following list will guide you in selecting activities that you might enjoy:

- * Brisk walking is probably one of the most efficient ways to obtain desired cardio effect. It is also one of the most accessible forms of exercise and can be done anytime or anywhere. In summers, mornings are preferred. Though walking is a low impact activity, using soft surfaces, proper shoes and stretching before a walk is recommended to avoid injuries.
- * Aerobics: Aerobic exercises also increase one's endurance for better sustenance which in turn increases the body's fat burning efficiency and overall calorie burning potential.
- * Cycling: It is a great cardio activity that helps develop a strong heart and lung capacity in addition to losing weight or fat. It shapes and tones the leg muscles and because there is no impact, the risk of injury is minimal.
- * Swimming: This is a fun sport and one of

the best all round exercise with excellent cardio effect. It is also the most ideal form of exercise in the summer months. It works on every muscle group, strengthens the efficacy of the heart and lungs. The natural resistance of water helps tone the muscles of arms, core and legs. Swimming is also an excellent training option for those with injuries to the back and lower extremities.

- * Boot camp, Calisthenics, Pilates, outdoor sports, and gym workouts are excellent forms of exercises that can be incorporated into your daily routine.



FOODS TO AVOID

- Foods rich in fat, especially animal foods.
- Sugar and sugary foods like desserts, sweets, etc.
- White flour, sago, white breads, pasta,
- Papad, pickle.
- Milk shakes, aerated drinks.
- Fried foods and junk food.
- Fruit juice beverages
- Canned vegetables with added sodium
- Regular jam, jelly and preserves
- Coffee with sugar and cream



GENERAL GUIDELINES:

- Achieve and maintain desirable weight.
- Eat at regular intervals. Do not skip meals.
- Incorporate whole grain cereal flours or millet flours instead of white or refined flour.
- Be cautious about your salt intake.
- Have an early dinner, at least 3 hours before bed time.
- Drink adequate amounts of water.
- Methi seeds, bittergourd juice, etc. have shown to reduce blood insulin and glucose levels.
- Regular exercises with a blend of yoga, pranayam and other exercises are recommended. Yogasanas like dhanurasan, pawanmukthasan, bhujangasan, ardhmatsyendrasan, naukasana, etc. are recommended, under proper guidance, for strengthening the spine, firming and toning of the abdomen, better

Prevention is the best solution to a lot of lifestyle related diseases. It is important to focus on healthy food options, regular productive exercises and **reduction of stress.**

oxygenation, to control diabetes, for improved digestion, better endocrine function, flexibility and for controlling obesity. Yoga helps heal and rejuvenate the body and mind, and maintains our system in radiant health.

Prevention is therefore the best solution and answer to a lot of lifestyle related diseases. It is important to focus on healthy food options, regular productive exercises and reduction of

stress. Good health is a prerequisite for a long and disease free life, to boost energy, strength, stamina, flexibility, agility, conditioning, immunity, alertness, reflexes, self esteem and to maintain an ideal body fat ratio.

It's never too late to internalize, rejuvenate and heal from within!!! 🙏

Mickey Mehta, Owner and MD,
Mickey Mehta's 360 Degree
Wellness Temple, India

squeaky clean

Washing hands before checking blood glucose is an important way to get it right.



In user guides and how-to videos, blood glucose meter companies detail every step they want you to take when you check your blood glucose level. Yet study after study has shown that most people skip one or more of the steps.

Maybe you think, These steps can't all be important. Maybe you've heard different advices elsewhere. Or maybe you need some evidence of their value in achieving accurate results. Here we'll examine the most basic step—washing your hands, which may seem trivial or open to interpretation. For those of you in a hurry, see the tips below for what's best according to research.

To Wash or Not

Do you need to wash your hands before you check your blood glucose? Or is a quick wipe on your jeans good enough?

In a recent study published in *Diabetes Care*, 123 people had their

1 Wash your hands with soap and water. Not hand sanitizer or alcohol wipes. Plain ol' soap and water.

2 Dry them well. On dry skin, blood wells up in a nice, round bead. On a damp finger, blood tends to spread.

3 If you don't do No. 1 and No. 2, you'd be wise to wipe away the first drop of blood and use the second on your strip.

blood glucose levels checked by fingerstick and handheld meter 1) on unwashed hands; 2) after washing their hands with soap and water, drying them, and then handling fruit; and 3) after handling fruit and then washing and drying their hands again.

The researchers, led by Johanna Hortensius, R.N., at the Diabetes Centre, Isala Clinics, in Zwolle, the Netherlands, considered a reading acceptably accurate if it differed by less than 10 percent from the control (washed and dried hands).

- **Unwashed hands (no fruit):** When the first drop of blood was used, in about 1 in 9 tests the reading was more than 10 percent higher than the readings from washed hands. Wiping away the first drop of blood with a tissue and using the second drop eliminated most of the false increases.

- **Handling fruit:** Each participant sliced or peeled a piece of fruit and tested without washing. The results from the first drops of blood were, on average, 110 mg/dl higher than the readings from washed hands. Again, wiping away the first drop and testing the second helped bring the result closer to the control, but not enough.

The researchers concluded that the first drop of blood should be used for self-monitored glucose testing only after washing hands. If washing hands is not possible and they are not soiled or exposed to a sugar-containing product, use the second drop of blood.



Plain soap and water are best. **Hand sanitizers** and alcohol wipes may leave **residue** on your fingers.

Soap Wins

Are hand sanitizers and alcohol wipes as good as soap and water?

Cindy Young, R.N., CDE, a diabetes educator in North Yarmouth, Maine, has been getting reports from clients that when they use certain hand sanitizers, they get higher readings. Young, who does not have diabetes, ran her own tests. After she washed her hands with soap and water, her blood glucose reading was 99. After she used plain gel hand sanitizer, it was 98; after hand sanitizer with lotion, it was 115. If you use hand sanitizer, you may want to run some comparisons to see if it's affecting your readings.

If you're concerned about germs, soap and water still wins. According to the Centers for Disease Control and Prevention, "Washing hands with soap and water is the best way to reduce the number of germs on them. Alcohol-based hand sanitizers can quickly reduce the number of germs on hands in some situations, but sanitizers do not eliminate all types of germs."

How about alcohol wipes? In an earlier study done by Hortensius's group and reported in *The Netherlands Journal of Medicine*, they soiled the

fingers of 25 people with glucose, fruit, jam, honey, and chocolate. The researchers wiped the soiled fingers with chlorhexidine-alcohol solution, an antiseptic used to clean skin before surgery. The readings from the first drops of blood were, on average, 14 mg/dl higher than the readings taken from soiled fingers that had been washed with soap and water.

There's another problem with alcohol wipes. Christopher Stein at the University of Johannesburg, South Africa, found that not allowing the alcohol to evaporate before sticking the finger led to an average increase in the reading of about 9 mg/dl. That's fairly insignificant, Stein says, but if you're concerned, "Wipe the first drop of blood off the fingertip and use the second drop, which effectively removes the small error." 

4 If you touch a sugar-containing product, always wash your hands and dry them before testing.



Marie McCarren writes for clinical studies supported by the National Institutes of Health. She is the author of *American Diabetes Association Guide to Insulin & Type 2 Diabetes* (2007).

take care

A woman has many roles to play in her life and she juggles them just perfectly. However, there is one that she often ignores, herself. On the occasion of International Women's Day, we want to say, 'take care'...

Woman have always been the most hard working members in a family, taking care of all in the household, raising the kids, managing the finances, doing the laundry, and balancing chores that we are not even aware of. With them finally stepping out of homes and joining forces in offices and businesses, their scope of responsibility has only escalated higher. They are biologically inclined to be caregivers and no matter how many hours they spend on their jobs, still take on more of the childbearing work than men. This argument leads to an ironic point of logic that in the midst of all this they tend to overlook their own health.

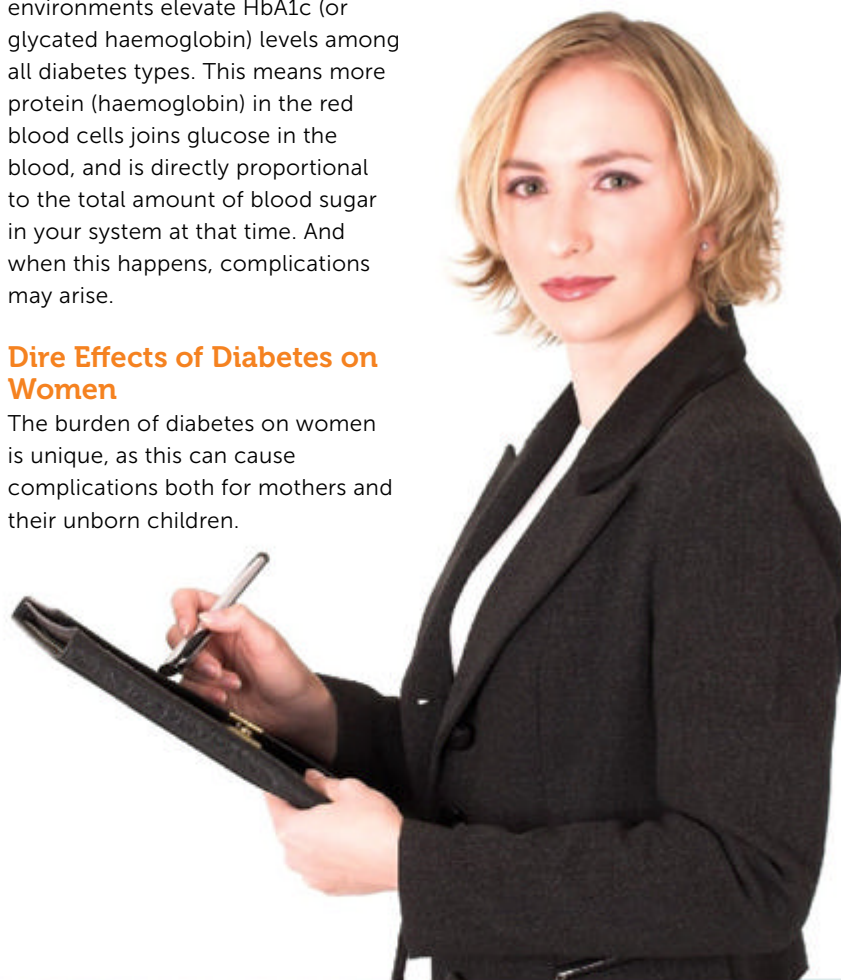
But diseases and medical conditions don't differentiate between genders as social norms do. They strike, affect and stick with one and all, when priorities make an absolute shift from oneself to another. Where minor health troubles may be fought against with pills and syrups, chronic disorders like diabetes need greater attention. Imperative is to overcome common barriers to self care, the biggest of which is motivation. The best way to do that is by realising the fact that everyone is entitled to

a healthy lifestyle and there is no excuse against it.

Studies have shown that colder environments elevate HbA1c (or glycated haemoglobin) levels among all diabetes types. This means more protein (haemoglobin) in the red blood cells joins glucose in the blood, and is directly proportional to the total amount of blood sugar in your system at that time. And when this happens, complications may arise.

Dire Effects of Diabetes on Women

The burden of diabetes on women is unique, as this can cause complications both for mothers and their unborn children.



For women who do not have the condition may develop gestational diabetes during pregnancy due to an inability to secrete sufficient insulin to overcome the increased insulin resistance as pregnancy proceeds. Few come out clean post delivery but many are at an increased risk of developing type 2 diabetes later in life. Adolescent females with type 1 diabetes show early evidences of retinopathy (diabetic eye disease), and a delayed menarche. They are also more prone to developing coronary heart disease than men. At old age diabetes can lead to kidney diseases, blindness, depression, hyperglycaemia and strokes, besides heart diseases.



Managing Diabetes at Work

There are ways to keep diabetes under control and avoid all the scary repercussions if done otherwise. Add the following points to your daily mandate and you will already be at a better place:

- **Never skip breakfast.** However pressed for time you may be in the morning, there is no reason to skip the first and the most important meal of the day. If any diabetic, especially one who is on medication, misses breakfast, it can lead to a threatening drop in the sugar levels, not only affecting their health but also the work performance. Food that's healthy and keeps the energy levels high must be consumed.
- **Bring your own lunch.** If you are on insulin, food must be readily available following the shot, lest a time lag may cause the blood sugar level to fall. Also, carrying your own lunch puts you in control of what you eat. If not, there may be healthy options available in the cafeteria or some other eating joint. But an advance trip to the food lorry must be made, to figure out the best fitting calorie meal.
- **Testing blood sugar.** If you are in a condition where blood needs to be checked during the day while at work, nothing should deter you from doing so. By planning ahead smartly you may save yourself feeling and making others feel uncomfortable. Prepare a kit with a clean way of disposing your lancets, and keep wrapped alcohol prep pads in your desk drawer to wipe your finger before and after the prick. You may not always get the privacy that you want, at work.
- **Don't be embarrassed.** It is an understood fact that diabetics need their candies and portions of munchies when the body demands, so don't be conscious about it if you need to do it in the middle of a meeting. Just excuse yourself for a bathroom break, step out and quickly munch on your glucose booster. It is best to let people at your workplace know about your health situation so that they cooperate.

Insulin and Menstruation

Every body is different and reacts differently through the menstrual cycle. Blood sugar levels take a toll when hormones fluctuate during periods. A higher oestrogen level (as is usually the case during periods) may make your body resistant to its own insulin or one that's injected. In order to find out the unique pattern of reaction of your own body record the blood sugars four to five times a day a week before, during and after your period, for 2 to 3 months. The result will brief you on your insulin requirement and you can better manage it without any avoidable mess.

Similarly menopause too poses some problems in diabetics. The blood sugar levels are more variable and unpredictable due to hormonal changes; some women gain weight; a drop in oestrogen make them prone to developing urinary and vaginal infections; hot flashes and night sweats may cause problems during sleep, all of which contribute to an out of control diabetes. The way out is to make healthy lifestyle choices, by eating healthy and exercising regularly, measuring your blood sugar regularly to keep things under control, asking your doctor about new medication post menopause, and by seeking help for menopausal symptoms. 41

Quick Treats

Summer Tomato Stack



Makes
1
serving

PER SERVING: 203 cal., 12 g total fat (4 g sat. fat), 22 mg chol., 531 mg sodium, 16 g carb., 3 g fibre, 10 g pro. Exchanges: 0.5 vegetable, 1 starch, 1 medium-fat meat, 1 fat. Carb choices: 1.

Sweet-and-Sour Chicken Slaw



3
grams
fibre

PER SERVING: 285 cal., 10 g total fat (1 g sat. fat), 72 mg chol., 81 mg sodium, 21 g carb., 3 g fibre, 28 g pro. Exchanges: 1.5 vegetable, 1 carb., 3.5 very lean meat, 1.5 fat. Carb choices: 1.5.

Tuna Pita Pockets



Carb
choices:
1

PER SERVING: 254 cal., 8 g total fat (1 g sat. fat), 26 mg chol., 463 mg sodium, 20 g carb., 3 g fibre, 25 g pro. Exchanges: 0.5 vegetable, 1 starch, 3 very lean meat, 1.5 fat. Carb choices: 1.

Yoghurt-Fruit Parfaits



4
grams
fiber

PER SERVING: 206 cal., 9 g total fat (4 g sat. fat), 23 mg chol., 163 mg sodium, 25 g carb., 4 g fibre, 8 g pro. Exchanges: 0.5 fat-free milk, 1 fruit, 2 fat. Carb choices: 1.5.

Toss, stack, layer, stuff. These quick no-cook recipes are easy to assemble, which means less time in the kitchen for you!

Sweet-and-Sour Chicken Slaw

Using spreadable fruit in the salad dressing instead of a high-sugar jam helps to keep the calories low.

SERVINGS 4 (1¾-cup each) **CARBS PER SERVING** 21 g

- 12 ounces cooked chicken breast, shredded *
- 4 cups packaged shredded cabbage with carrot (coleslaw mix)
- 1 cup fresh pea pods, trimmed and halved
- ¼ cup raspberry or strawberry spreadable fruit
- 2 tablespoons canola oil
- 4 teaspoons cider vinegar
- 1 medium red apple, cored and chopped

In a large bowl, combine chicken, coleslaw mix, and pea pods; set aside. In a small bowl, whisk together spreadable fruit, oil, and cider vinegar; add apple and toss to coat. Add apple mixture to cabbage mixture; toss to coat.

*** TEST KITCHEN TIP:** Use leftover chicken, deli-cooked chicken breast, or drained canned chicken breast.

MAKE-AHEAD DIRECTIONS: Prepare salad as directed. Cover and chill for up to 1 hour before serving. 🕒

Summer Tomato Stack

Fresh summer basil and tomatoes take a cheese sandwich from ordinary to fantastic. Olive oil is a flavour-boosting, healthful fat.

SERVINGS 1 stack **CARBS PER SERVING** 16 g

- ½ of a whole wheat English muffin, toasted
- 2 thin slices yellow and/or red tomato
- 2 slices fresh mozzarella cheese (1 ounce)
- 1 teaspoon snipped fresh basil
- 1 teaspoon olive oil
- Dash salt
- Dash cracked black pepper
- 1 grape tomato or cherry tomato, halved (optional)

On English muffin half, layer a tomato slice, a mozzarella slice, and half of the basil. Repeat layers. In a small bowl, combine olive oil, salt, and pepper. Drizzle onto tomato stack. If desired, top with cherry tomato halves. 🕒

Yoghurt-Fruit Parfaits

These eye-catching fruit parfaits make a refreshing sweet treat for brunch, lunch, or a light supper.

SERVINGS 4 (1-cup each) **CARBS PER SERVING** 25 g

- ½ of an 8-ounce package reduced-fat cream cheese (Neufchâtel), softened
- 2 6- to 8-ounce cartons raspberry fat-free yoghurt with sweetener
- 1½ cups sliced fresh strawberries
- 1½ cups chopped, pitted fresh peaches
- 1 cup fresh blueberries
- 2 tablespoons sliced almonds or walnuts, toasted

In a medium bowl, beat cream cheese with an electric mixer on medium speed until smooth. Gradually beat in yoghurt. In a large bowl, combine strawberries, peaches, and blueberries.

Spoon half of the fruit mixture into four 10- to 12-ounce wide-mouth glasses or parfait glasses. Spoon half of the yoghurt mixture onto fruit in glasses. Repeat layers. Top with nuts. 🕒

Tuna Pita Pockets

Tired of the same old creamy tuna salad? Switch to this delectable vinaigrette-dressed version.

SERVINGS 4 half pockets **CARBS PER SERVING** 20 g

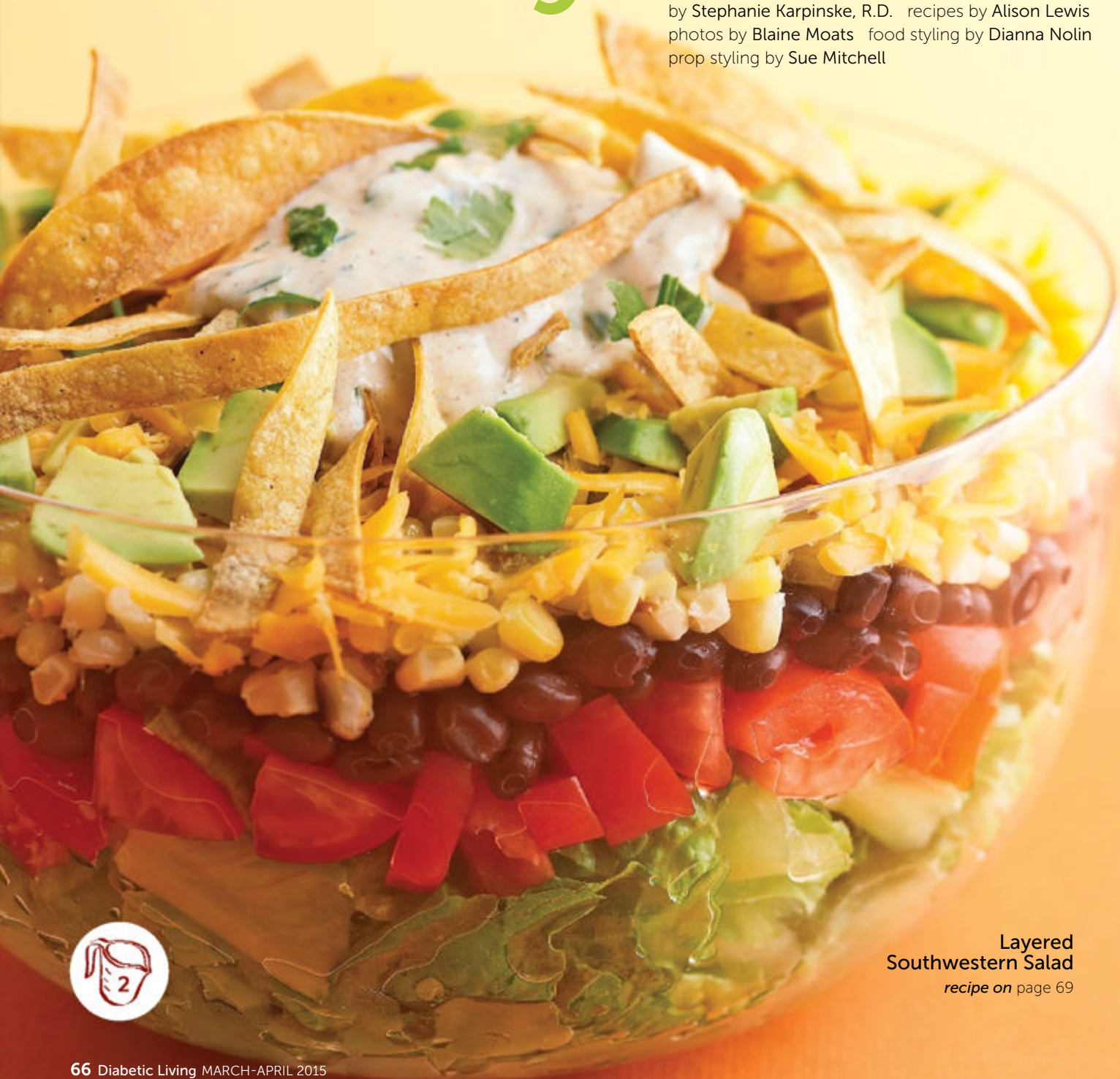
- 2 tablespoons canola oil
- 1 tablespoon white wine vinegar
- ⅛ teaspoon ground black pepper
- 2 6-ounce cans chunk light tuna (water pack), drained
- ¾ cup quartered grape tomatoes
- 3 tablespoons sliced green onions
- 2 large whole wheat pita bread rounds, halved crosswise
- 4 lettuce leaves

In a medium bowl, stir together oil, vinegar, and pepper. Stir in tuna, grape tomatoes, and green onions. Line pita bread halves with lettuce leaves. Divide mixture among pita bread halves. 🕒

salads that satisfy

Bland iceberg lettuce and pale carrot shreds are passe. This summer, try these main-dish salads loaded with lean protein, healthful fats, and plenty of veggies. Each one is a satisfying, complete meal.

by Stephanie Karpinske, R.D. recipes by Alison Lewis
photos by Blaine Moats food styling by Dianna Nolin
prop styling by Sue Mitchell



Layered
Southwestern Salad
recipe on page 69

Superfoods Salad

Spinach, strawberries, blueberries, and walnuts sometimes are called superfoods because they're loaded with antioxidants, which are often touted as massive contributors to good health.

SERVINGS 4 (about 2 cups salad and 2 tablespoons dressing each)

CARB. PER SERVING 22 g

- $\frac{1}{3}$ cup raspberry vinegar
- 2 tablespoons snipped fresh mint
- 2 tablespoons honey
- 1 tablespoon canola oil
- 4 cups packaged fresh baby spinach leaves
- 2 cups chopped cooked chicken breast
- 2 cups fresh strawberries, hulled and sliced
- $\frac{1}{2}$ cup fresh blueberries
- $\frac{1}{4}$ cup walnuts, toasted and coarsely chopped
- 1 ounce semisoft goat cheese, crumbled

1. For vinaigrette: In a screw-top jar, combine vinegar, mint, honey, oil, and $\frac{1}{4}$ teaspoon salt. Cover and shake well.
2. In a large bowl, toss together spinach, chicken, strawberries, blueberries, walnuts, and goat cheese. Transfer to four salad plates. Drizzle with vinaigrette and sprinkle with $\frac{1}{2}$ teaspoon black pepper.

PER SERVING: 303 cal., 13 g fat (2 g sat. fat), 63 mg chol., 249 mg sodium, 22 g carb., 3 g fibre, 26 g pro. Exchanges: 1 vegetable, 0.5 fruit, 0.5 carb., 3.5 very lean meat, 2 fat. Carb choices: 1.5.

Scallop Salad with Basil Vinaigrette

Balsamic vinegar adds a touch of sweetness to the light basil dressing that partners deliciously with the scallops, greens, and mixed veggies. Pictured on page 68.

SERVINGS 4 ($1\frac{1}{2}$ cups salad greens, about $\frac{3}{4}$ cup tomato mixture, and 2 or 3 scallops each)

CARB. PER SERVING 22 g



Superfoods Salad

- | | |
|---|---|
| 1 pound fresh or frozen sea scallops | whole kernel corn, thawed |
| $\frac{1}{4}$ cup snipped fresh basil | $\frac{1}{2}$ of a medium English cucumber, chopped |
| 3 tablespoons balsamic vinegar | 2 tablespoons finely shredded Parmesan cheese (optional) |
| 2 tablespoons lemon juice | |
| 2 tablespoons olive oil | |
| 2 teaspoons Dijon-style mustard | 1. Thaw scallops, if frozen. Rinse scallops; pat dry with paper towels. |
| 6 cups torn mixed salad greens | For vinaigrette: In a screw-top jar, combine basil, vinegar, lemon juice, oil, mustard, and $\frac{1}{4}$ teaspoon black pepper. Cover and shake. |
| 3 plum tomatoes, seeded and chopped | Set aside. |
| 1 medium red sweet pepper, seeded and chopped | |
| 1 cup fresh corn kernels or frozen | |



Scallop Salad with
Basil Vinaigrette

recipe on page 67



Vegetables, beans, and some other salad ingredients contain fibre—both soluble and insoluble. Fibre has been shown to slow glucose absorption, and soluble fibre can help lower cholesterol.

Toss-ins

Update your salad with ingredients that lend healthful fats, fibre, and antioxidants. Check out this list for what to toss in your salad. And see **page 73** for what to toss out.

Toss in ...

Beans: Black beans, pinto beans, chickpeas—any type of bean will do. Keep several cans on hand and rinse and drain when ready to use.

Nuts: Toast whole walnuts, pecans, or almonds, then roughly chop and use just a tablespoon for added flavour and crunch.

Dried fruit: Just a tablespoon of dried cranberries, cherries, or other dried fruit will boost the flavour in your salad.

Fresh fruit: Chop up an apple, peach, pineapple, or other fruit for colour, texture, and sweetness.

2. Sprinkle scallops with $\frac{1}{4}$ teaspoon black pepper. Coat an unheated large nonstick skillet with nonstick cooking spray. Preheat over medium-high heat. Add scallops; cook for 2 to 4 minutes or until scallops are opaque, turning once halfway through cooking.

3. Meanwhile, divide salad greens among four serving plates. In a large bowl, combine tomatoes, sweet pepper, corn, and cucumber. Add half of the vinaigrette; toss to coat. Add to serving plates with greens. Add scallops to salads and brush with some of the remaining vinaigrette. Pass the remaining vinaigrette. If desired, sprinkle with Parmesan cheese.

PER SERVING: 256 cal., 9 g fat (1 g sat. fat), 37 mg chol., 241 mg sodium, 22 g carb., 4 g fibre, 23 g pro. Exchanges: 2.5 vegetable, 0.5 starch, 2.5 very lean meat, 1.5 fat. Carb choices: 1.5.

Asian Tofu Salad

Tofu not only has a high nutritional value but also carries other flavours.

SERVINGS 6 ($1\frac{1}{4}$ cups salad, 2 slices tofu, and 1 tablespoon dressing each)

CARB. PER SERVING 18 g

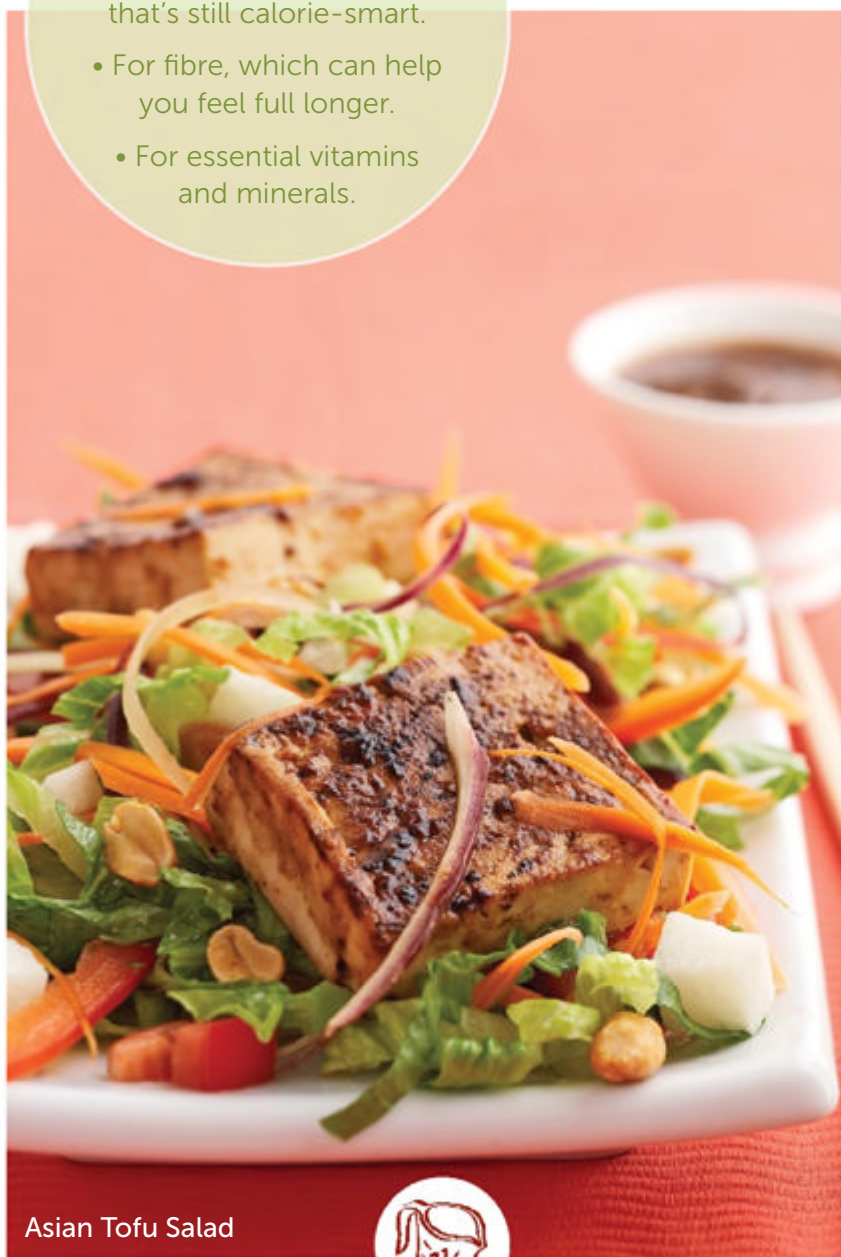
- $\frac{1}{4}$ cup reduced-sodium soy sauce
- $\frac{1}{4}$ cup sweet chili sauce
- 1 tablespoon creamy peanut butter
- 1 clove garlic, minced
- 1 teaspoon grated fresh ginger
- 1 16- to 18-ounce package firm water-packed tofu (fresh bean curd)
- 1 teaspoon toasted sesame oil
- 4 cups shredded romaine lettuce
- $1\frac{1}{2}$ cups chopped, peeled jicama
- 1 medium red sweet pepper, seeded and thinly sliced
- 1 cup coarsely shredded carrot
- 2 tablespoons unsalted dry-roasted peanuts
- 2 tablespoons snipped fresh cilantro

1. In a small bowl, whisk together soy sauce, chili sauce, peanut butter, garlic, and ginger. Pat tofu dry with paper towels. Cut tofu crosswise into

Fresh fruits and vegetables can lose some vitamins and minerals as well as quality when they are held a long time and exposed to air. So organic products should be used and they should be served fresh.

Add fruits and veggies:

- To make a bigger salad that's still calorie-smart.
- For fibre, which can help you feel full longer.
- For essential vitamins and minerals.



Asian Tofu Salad



12 slices. Place slices in a 2-quart rectangular baking dish. Drizzle tofu with 3 tablespoons of the soy sauce mixture, turning to coat tofu. Let marinate for 30 minutes, turning tofu occasionally. Set aside the remaining soy sauce mixture for dressing.

2. In a very large nonstick skillet, heat sesame oil over medium-high heat. Remove tofu from the marinade. Add remaining marinade to the skillet. Add tofu slices to the hot skillet. Cook for 5 to 6 minutes or until lightly browned, turning once halfway through cooking.

3. In a large bowl, combine lettuce, jicama, sweet pepper, and carrot. Divide among six salad plates. Top with tofu, peanuts, and cilantro. Serve with reserved dressing mixture.

PER SERVING: 179 cal., 7 g fat (1 g sat. fat), 0 mg chol., 515 mg sodium, 18 g carb., 3 g fibre, 11 g pro. Exchanges: 1.5 vegetable, 0.5 carb., 1 medium-fat meat, 0.5 fat. Carb choices: 1.

Layered Southwestern Salad

Break out of a salad rut with this zesty, slimmed-down Tex-Mex medley topped with a light sour cream dressing. Pictured on page 66.

SERVINGS 6 (about 2 cups with 1½ tablespoons dressing each)

CARB. PER SERVING 29 g

- 2 6-inch corn tortillas
- Nonstick cooking spray
- ½ cup light sour cream
- ¼ cup snipped fresh cilantro
- 2 tablespoons fat-free milk
- 1 teaspoon olive oil
- 1 large clove garlic, minced
- ½ teaspoon chili powder
- ½ teaspoon finely shredded lime peel
- 6 cups torn romaine lettuce
- 4 plum tomatoes, chopped (2 cups)
- 1 15-ounce can black beans, rinsed and drained
- 1 cup fresh corn kernels*
- ½ cup shredded reduced-fat cheddar cheese (2 ounces)
- 1 avocado, halved, pitted, peeled, and chopped
- Snipped fresh cilantro (optional)

1. Preheat oven to 175°C. Cut tortillas into ½-inch-wide strips; place in a 15x10x1-inch baking pan. Coat tortilla strips lightly with cooking spray. Bake for 15 to 18 minutes or just until crisp, stirring once. Cool on a wire rack.

2. For dressing: In a small bowl, stir together sour cream, the ¼ cup cilantro, milk, oil, garlic, chili powder,

lime peel, ¼ teaspoon salt, and ¼ teaspoon black pepper.

3. Place lettuce in a large glass serving bowl. Top with tomatoes, beans, corn, cheese, and avocado. Add dressing and sprinkle with tortilla strips. If desired, garnish with additional cilantro.

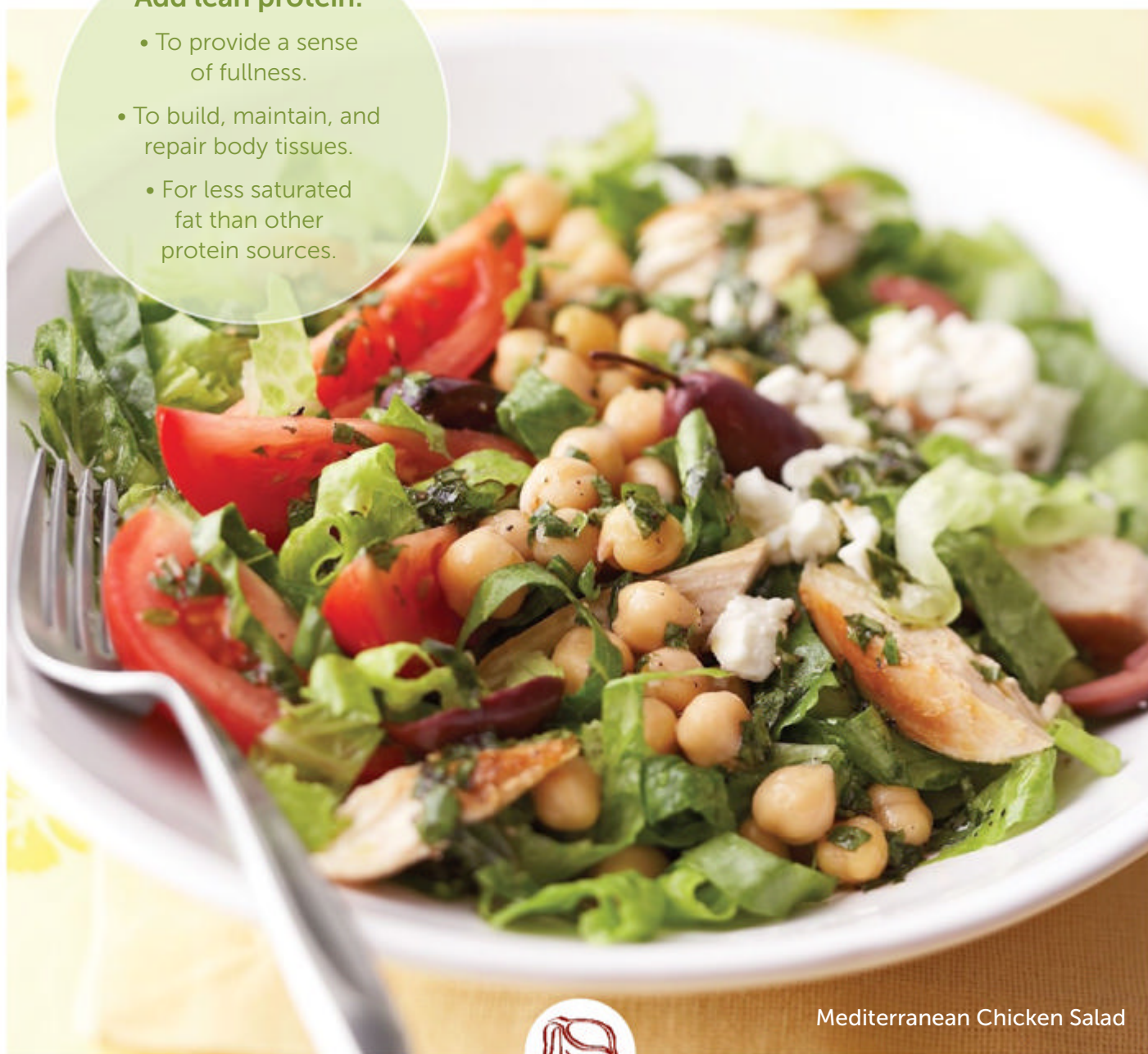
***TEST KITCHEN TIP:** It isn't necessary to cook the corn. However, for a roasted

flavour and softer texture, try baking it with the tortilla strips. Place the strips at one end of the baking pan and the corn at the other end.

PER SERVING: 227 cal., 11 g fat (3 g sat. fat), 12 mg chol., 386 mg sodium, 29 g carb., 9 g fibre, 11 g pro. Exchanges: 1.5 vegetable, 1 starch, 0.5 lean meat, 2 fat. Carb choices: 2.

Add lean protein:

- To provide a sense of fullness.
- To build, maintain, and repair body tissues.
- For less saturated fat than other protein sources.



Mediterranean Chicken Salad

Mediterranean Chicken Salad

When you're grilling or broiling chicken breasts, cook some extra pieces to use in this salad. Most packaged cooked chicken is high in sodium.

SERVINGS 6 (about 1½ cups salad and 1⅓ tablespoons dressing each)

CARB. PER SERVING 23 g

- ⅓ cup lemon juice
- 2 tablespoons snipped fresh mint
- 2 tablespoons snipped fresh basil
- 2 tablespoons olive oil
- 1 tablespoon honey
- 5 cups shredded romaine lettuce
- 2 cups cut-up cooked chicken breast
- 2 plum tomatoes, cut into wedges
- 1 15-ounce can garbanzo beans (chickpeas), rinsed and drained
- 2 tablespoons crumbled reduced-fat feta cheese
- 2 tablespoons pitted kalamata olives, quartered (optional)

1. For dressing: In a screw-top jar, combine lemon juice, mint, basil, oil, honey, and ¼ teaspoon black pepper. Cover and shake well.

2. Place lettuce on a large platter. Top with chicken, tomatoes, beans, cheese, and the quartered olives (if using). Drizzle with dressing. If desired, garnish individual servings with *whole olives*.

PER SERVING: 237 cal., 8 g fat (1 g sat. fat), 41 mg chol., 292 mg sodium, 23 g carb., 5 g fibre, 20 g pro. Exchanges: 1 vegetable, 1 starch, 2 very lean meat, 1.5 fat. Carb choices: 1.5.

Iceberg Wedges with Shrimp and Blue Cheese Dressing Salad

The crispy iceberg lettuce and creamy blue cheese provide a perfect contrast.

SERVINGS 6 (about 1 cup vegetables, 5 shrimp, and 2 tablespoons dressing each)

CARB. PER SERVING 8 g

- 1½ pounds fresh or frozen large shrimp in shells



Iceberg Wedges with Shrimp and Blue Cheese Dressing

- 3 tablespoons lemon juice
- ½ cup light mayonnaise or salad dressing
- ¼ to ½ teaspoon bottled hot pepper sauce
- 2 tablespoons crumbled blue cheese
- 3 to 4 tablespoons fat-free milk
- 1 large head iceberg lettuce, cut into 12 wedges
- 1 large tomato, chopped
- ⅓ cup thinly sliced red onion
- 2 slices turkey bacon, cooked and crumbled

1. Thaw shrimp, if frozen. Peel and devein shrimp, leaving tails intact if desired. Rinse shrimp; pat dry with paper towels. In a medium bowl, combine shrimp, 2 tablespoons of the lemon juice, and ⅛ teaspoon *black pepper*. Toss to coat. Set aside.

2. For dressing: In a small bowl, combine the remaining 1 tablespoon lemon juice, ⅛ teaspoon *black pepper*, the mayonnaise, and hot pepper sauce. Stir in blue cheese. Stir in enough of the milk to make desired consistency.

3. Coat an unheated grill pan with

nonstick cooking spray. Preheat grill pan over medium-high heat. Thread shrimp onto six 10- to 12-inch-long skewers.* Place skewers on grill pan. Cook 3 to 5 minutes or until shrimp are opaque, turning once halfway through cooking.

(If necessary, cook shrimp skewers half at a time.)

4. Place two of the lettuce wedges on each of six salad plates. Top with shrimp, tomato, red onion, and turkey bacon. Serve with dressing.

***TEST KITCHEN TIP:** If using wooden skewers, soak skewers in enough water to cover at least for 30 minutes before using.

PER SERVING: 190 cal., 10 g fat (2 g sat. fat), 129 mg chol., 360 mg sodium, 8 g carb., 1 g fibre, 18 g pro. Exchanges: 1.5 vegetable, 2 very lean meat, 2 fat. Carb choices: 0.5.



See 8 more delicious ways to add veggies to meals.

DiabeticLivingOnline.com/eat-more-veggies



Add healthful fats:

- To help your body absorb the fat-soluble vitamins A, D, E, and K.
- To get more monounsaturated fats, which can help lower LDL (bad) cholesterol.

Cobb Salad



Toss-outs

You may be loading your healthful salad with unhealthful ingredients. Check out this list for what to leave off your salad.

Toss out ...

Croutons: Even fat-free croutons add empty calories. If you must have them, make your own from toasted whole grain bread.

High-fat cheeses: They add unwanted fat and calories. When you're craving cheese, use just a tablespoon. And opt for high-flavour cheeses such as feta or Parmesan.

Purchased dressings: Most are full of preservatives and sodium. Make your own with different herbs and seasonings.

Sunflower seeds: A staple at salad bars, sunflower seeds have 36 calories and 3 grams of fat per tablespoon. It's easy to toss in several spoonfuls and overload it on fat and calories.

Turkey-Broccoli Salad with Grapes



Turkey-Broccoli Salad with Grapes

Rich in vitamins A, C, and K, broccoli slaw mix makes this salad nutritious as well as supereasy to prepare.

SERVINGS 6 (1½ cups salad and 1⅓ tablespoons dressing each)

CARB. PER SERVING 14 g or 13 g

- ⅓ cup white balsamic vinegar
- 2 tablespoons olive oil
- 2 teaspoons sugar*
- 1 12-ounce package shredded broccoli (broccoli slaw mix)
- 1 pound cooked turkey breast, shredded
- 1½ cups seedless red grapes, halved
- 1 cup coarsely shredded carrot
- ¼ cup sliced almonds, toasted

1. For vinaigrette: In a screw-top jar, combine vinegar, oil, sugar, and ⅛ teaspoon salt. Cover and shake well. Set aside.
2. In a very large bowl, combine shredded broccoli, turkey, grapes, and carrot. Add dressing; toss to coat. Serve immediately or cover and chill up to 24 hours. Sprinkle with almonds

and ⅛ teaspoon black pepper just before serving.

***SUGAR SUBSTITUTES:** Choose from Splenda granular, Equal Spoonful or packets, or Sweet'N Low bulk or packets. Follow package directions to use product amount equivalent to 2 teaspoons sugar.

PER SERVING: 226 cal., 7 g fat (1 g sat. fat), 63 mg chol., 120 mg sodium, 14 g carb., 3 g fibre, 25 g pro. Exchanges: 1 vegetable, 0.5 fruit, 3 very lean meat, 1.5 fat. Carb choices: 1.

PER SERVING WITH SUBSTITUTE: Same as above, except 221 cal., 13 g carb.

Cobb Salad

In the 1920s, Bob Cobb created the classic version of this salad as a way to use leftovers. This recipe is an adaptation that keeps calories, carbs, and fat in check.

SERVINGS 6 (about 2½ cups salad and 1⅓ tablespoon dressing each)

CARB. PER SERVING 17 g

- 1 pound assorted fresh beets without tops (4 medium)
- 8 cups torn romaine lettuce

- 1½ cups cherry and/or pear tomatoes, halved
- 3 hard-cooked eggs, peeled and coarsely chopped
- 1 avocado, halved, pitted, peeled, and chopped
- 2 slices turkey bacon, cooked and crumbled
- 2 tablespoons crumbled blue cheese
- ½ cup bottled light Italian salad dressing

1. Preheat oven to 205°C. Scrub beets. Trim off stem and root ends from beets. Wrap each beet in foil and place on a baking sheet. Bake for 45 to 60 minutes or until you can easily pierce the beets with a knife. Cool for about 20 minutes or until cool enough to handle. Peel and cut beets into 1-inch pieces.
 2. On a large platter, arrange lettuce, tomatoes, eggs, avocado, bacon, blue cheese, and beets. Drizzle with salad dressing.
- PER SERVING:** 210 cal., 13 g fat (3 g sat. fat), 113 mg chol., 351 mg sodium, 17 g carb., 7 g fibre, 8 g pro. Exchanges: 2.5 vegetable, 0.5 medium-fat meat, 2 fat. Carb choices: 1.

enjoy your veggies

We'll show you how to transform your vegetables from ho-hum to oh, yum! Each of these veggie-rich dishes is loaded with colour, nutrients, and—most important—fabulous flavour. Best of all, low-cal vegetables let you add more food to your plate!

by Sheena Chihak, R.D.
recipes by Laura Marzen, R.D., L.D.
photos by Scott Little and Blaine Moats
food styling by Angela McCrovitz

"A lot of people don't like veggies because they grew up eating frozen and canned, which don't taste that good. People might eat more if they knew more ways to cook them."

—chef Jeanne Cullen, R.D., CDE



Raw and frozen artichokes are low in calories and carbs, and are virtually **fat free**. They help fill you up.

**Mediterranean
Stuffed Chicken**
recipe on page 78



Mushroom-Sausage Flatbreads

Cooking tomatoes pumps up their health benefits. Heat releases lycopene, a powerful antioxidant.

Mushroom-Sausage Flatbreads

A healthy way to use sausage.

SERVINGS 8 ($\frac{1}{2}$ flatbread each)

CARBS PER SERVING 12 g

- 6 ounces uncooked Italian turkey sausage links, casings removed
- 2 cup sliced fresh mushrooms
- 2 medium tomatoes
- $\frac{1}{2}$ of a 16-ounce package frozen peppers and onions stir-fry vegetables (2 cups)
- 3 cloves garlic, minced
- 4 multigrain low-fat wraps
- $\frac{3}{4}$ cup shredded reduced-fat mozzarella cheese (3 ounces)
- 2 tablespoons shredded Parmesan cheese (1 ounce)

1. Preheat oven to 220°C. In a large skillet, cook sausage and mushrooms over medium heat until sausage is browned and mushrooms are tender, stirring to break up sausage as it cooks. Drain mixture; set aside.
2. Meanwhile, chop one of the tomatoes;

thinly slice the other tomato. In the same skillet, cook chopped tomato, stir-fry vegetables and garlic over medium heat until boiling, stirring occasionally. Reduce heat. Simmer, uncovered, for 5 minutes or until most of the liquid is evaporated and vegetables are very tender, stirring occasionally.

3. Place wraps on a very large baking sheet. Bake for 5 minutes. Spread vegetable mixture over hot wraps. Top with sausage mixture. Top with sliced tomatoes. Sprinkle with mozzarella and Parmesan cheeses. Bake for 8 to 10 minutes more or until cheese melts and just starts to turn brown. To serve, cut each flatbread into quarters.

PER SERVING: 128 cal., 5 g total fat (2 g sat. fat), 20 mg chol., 440 mg sodium, 12 g carb., 6 g fibre, 12 g pro. Exchanges: 0.5 vegetable, 0.5 starch, 1.5 lean meat. Carb choices: 1.

Chicken Taco Casserole

(Pictured on page 80.)

Sweet pepper and spinach bring lots of vitamins A and C to this Tex-Mex layered meal-in-a-dish.

SERVINGS 6 ($\frac{2}{3}$ cup each)

CARBS PER SERVING 15 g

- 12 ounces chicken breast strips for stir-frying
- 2 cloves garlic, minced
- 1 teaspoon chili powder
- 2 teaspoons canola oil
- 1 medium onion, halved and thinly sliced
- 1 medium red or green sweet pepper, chopped
- 1 10-ounce package frozen chopped spinach, thawed and drained
- $1\frac{1}{2}$ cups bottled salsa
- 4 6-inch corn tortillas, coarsely torn
- $\frac{3}{4}$ cup reduced-fat Monterey Jack cheese, shredded (3 ounces)

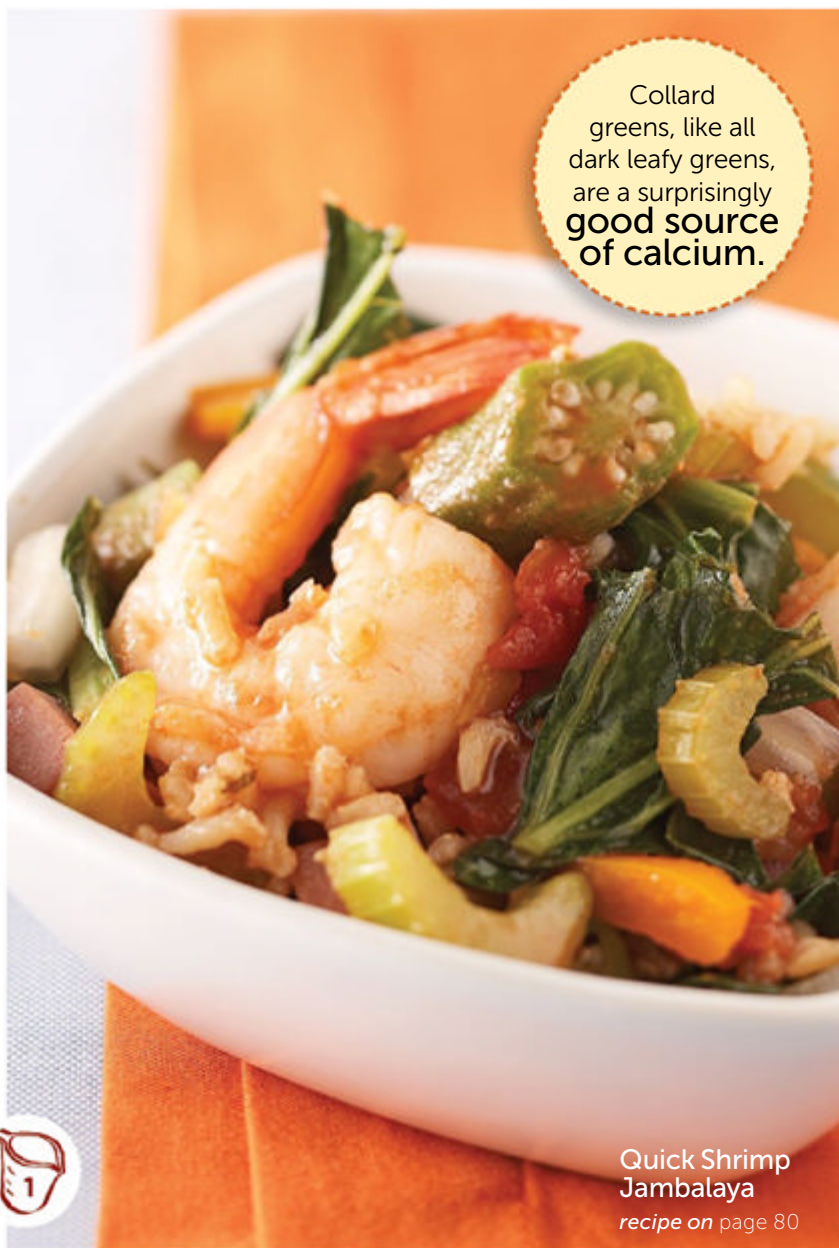
1. Preheat oven to 175°C. Coat an unheated large nonstick skillet with nonstick cooking spray. Preheat skillet over medium-high heat. In a medium bowl, toss together chicken, garlic, and chili powder. Add to hot skillet. Cook for 4 to 6 minutes or until chicken is no longer pink, stirring frequently. Remove chicken from skillet; set aside.

2. Pour oil into the hot skillet. Add onion and sweet pepper. Cook over medium heat for about 5 minutes or until tender, stirring occasionally. Stir in spinach.

3. Coat a 2-quart square baking dish with cooking spray. Spread about $\frac{1}{2}$ cup of the salsa on the bottom of the baking dish. Top with half of the tortilla pieces, half of the chicken mixture, and half of the vegetable mixture. Pour another $\frac{1}{2}$ cup of the salsa over the vegetables and top with half of the cheese. Repeat layers, except do not top with the remaining cheese.

4. Bake, covered, for 30 to 35 minutes or until heated through. Sprinkle with the remaining cheese. Let stand for 5 minutes before serving. If desired, garnish with

Continued on page 78 »



Collard greens, like all dark leafy greens, are a surprisingly good source of calcium.




Quick Shrimp Jambalaya
recipe on page 80

Carb counts

Everyone’s meal plan has room for plenty of veggies. But remember, some have more carbohydrates than others. Take a look at how some popular veggies stack up cup for cup:

Corn (yellow)	. . . . . 29 g
Potato (with skin)	. . . . . 26 g
Peas	. . . . . 21 g
Squash (acorn)	. . . . . 15 g
Carrots	. . . . . 12 g
Onion (sliced)	. . . . . 11 g
Green beans	. . . . . 8 g
Tomatoes	. . . . . 7 g
Broccoli	. . . . . 6 g
Green pepper (sliced)	. . . 4 g
Celery	. . . . . 3 g
Romaine lettuce	. . . . . 2 g
Spinach	. . . . . 1 g

**All values based on 1 cup of raw vegetables | source: USDA Nutrient Data Laboratory*



See 10 more delicious ways to add veggies to meals.

DiabeticLivingOnline.com/eat-more-veggies

Tips for tasty veggies

“People think the main flavouring ingredient for veggies is butter, which isn’t true,” says Jeanne Cullen, R.D., CDE, a trained chef. Here are her favourite low-sodium, low-fat tips to boost flavour:

- Roast large quantities of vegetables.** Toss your chopped veggies in a little olive oil and balsamic vinegar and roast in an oven at 190°C until vegetables are tender and lightly browned.
- Caramelize onions** (cook for a long time over low heat until golden) to bring rich sweetness to steamed broccoli, vegetable casseroles, and stir-fries.
- Use chili flakes, cumin, and other herbs and spices** to add pizzazz without extra sodium.
- Grill for smoky flavour.** Lightly coat your veggies with nonstick cooking spray and herbs, then grill. Grill a large batch of veggies and use leftovers in salads or as simple snacks.
- Sauté leafy greens** such as collards and kale all year long. Chop them up and add to soups, casseroles and ground meat mixtures.

cherry tomatoes, chopped avocado, and/or fresh cilantro.

PER SERVING: 196 cal., 6 g total fat (2 g sat. fat), 43 mg chol., 544 mg sodium, 15 g carb., 4 g fibre, 20 g pro. Exchanges: 1 vegetable, 0.5 starch, 2.5 very lean meat, 1 fat. Carb choices: 1.

Layered Vegetable Bake

Easy to prepare, the dish looks as impressive as it tastes.

SERVINGS 8 (1 wedge each)

CARBS PER SERVING 14 g

- 1 pound Yukon gold potatoes
- 2 medium carrots, peeled and halved crosswise
- 4 packaged refrigerated cooked whole baby beets, very thinly sliced*
- 1 medium zucchini, very thinly sliced
- 2 teaspoons olive oil

1. Scrub potatoes; remove eyes and/or sprouts. In a covered large saucepan, cook potatoes in enough boiling water to cover for about 25 minutes or until tender, adding the carrot pieces in the

last 4 minutes of cooking time. Drain; cool until easy to handle. Very thinly slice potatoes and carrots.

2. Preheat oven to 205°C. Line a 9x1½-inch round baking pan with heavy foil. Generously coat foil with *nonstick cooking spray*. Layer half of the beet slices, half of the carrot slices, half of the zucchini slices, and half of the potato slices in pan. Drizzle with oil and sprinkle with ⅛ teaspoon salt and ⅛ teaspoon black pepper. Repeat layers; sprinkle with ⅛ teaspoon salt and ⅛ teaspoon black pepper. Cover with foil; press down lightly with hands.

3. Bake for 30 to 35 minutes or until vegetables are tender. Let it stand for 5 minutes. Remove the top piece of foil. Invert vegetables onto a serving plate; peel off foil. Cut into 8 wedges to serve.

***TEST KITCHEN TIP:** Using a mandoline will allow you to cut the vegetables into very thin slices.

All four veggies in this dish are **rich sources of potassium**, important for heart and kidney health.



Layered Vegetable Bake

PER SERVING: 72 cal., 1 g total fat (0 g sat. fat), 0 mg chol., 95 mg sodium, 14 g carb., 2 g fibre, 2 g pro. Exchanges: 1 vegetable, 0.5 starch. Carb choices: 1.

Mediterranean Stuffed Chicken

A light but flavourful way to prepare chicken.

(Pictured on page 75.)

SERVINGS 4 (1 breast half each)

CARBS PER SERVING 2 g

- 4 skinless, boneless chicken breast halves (1 to 1½ pounds total)
- ¼ cup crumbled reduced-fat feta cheese (1 ounce)
- ¼ cup finely chopped drained bottled marinated artichoke hearts
- 2 tablespoons finely chopped drained bottled roasted red sweet peppers
- 2 tablespoons thinly sliced green onions
- 2 teaspoons snipped fresh oregano or ½ teaspoon dried oregano, crushed

1. Using a sharp knife, cut a pocket in each chicken breast half by cutting horizontally through the thickest portion to the opposite side.

2. In a bowl, combine feta, artichoke hearts, roasted peppers, green onions, and oregano. Spoon evenly into chicken breasts. If necessary, secure with wooden toothpicks. Sprinkle chicken with ⅛ teaspoon black pepper.

3. Coat an unheated large nonstick skillet with nonstick cooking spray. Preheat skillet over medium heat. Add chicken. Cook for 12 to 14 minutes or until no longer pink (75°C), turning once.

GRILLING DIRECTIONS: Place chicken on the rack of an uncovered grill directly over medium coals. Grill 12 to 15 minutes or until chicken is no longer pink (170°F), turning once halfway through. (For a gas grill, preheat grill. Reduce heat to medium. Place chicken on grill rack over heat. Cover and grill as above.)

Continued on page 80 »

Quick side dishes

Five-Minute Pilaf

Brown rice dressed up with frozen veggies is an easy side dish.

SERVINGS 6 ($\frac{1}{2}$ cup each)

CARBS PER SERVING 17 g

- 1 8.8-ounce pouch cooked brown rice
- 2 cups frozen Italian-blend vegetables
- $\frac{1}{4}$ cup refrigerated reduced-fat basil pesto
- 2 tablespoons pine nuts or chopped walnuts, toasted

In a large microwave-safe bowl, mix brown rice and frozen vegetables. Cover bowl. Microwave on 100% power (high) for 4 to 5 minutes or until vegetables are crisp-tender and mixture is heated through, stirring once or twice during cooking. Stir in pesto. Sprinkle with nuts to serve.

PER SERVING: 136 cal., 6 g total fat (1 g sat. fat), 3 mg chol., 110 mg sodium, 17 g carb., 2 g fibre, 4 g pro. Exchanges: 0.5 vegetable, 1 starch, 1 fat. Carb choices: 1.

Saucy Beans with Tomatoes

SERVINGS 8 ($\frac{1}{2}$ cup each)

CARBS PER SERVING 21 g

- 1 medium onion, thinly sliced
- 1 red sweet pepper, chopped
- 2 15- to 16-ounce cans cannellini beans and/or pinto beans, rinsed and drained
- 1 14.5-ounce can no-salt-added diced tomatoes, undrained
- 1 tablespoon honey
- 1 tablespoon rice vinegar
- 2 teaspoons reduced-sodium soy sauce
- $\frac{1}{4}$ teaspoon ground ginger
- $\frac{1}{4}$ teaspoon crushed red pepper

Coat a large saucepan with *nonstick cooking spray*. Preheat over medium heat. Cook onion and sweet pepper for 5 minutes, stirring occasionally. Stir in remaining ingredients. Bring to boil; reduce heat. Cover and simmer for 10 minutes, stirring occasionally. Uncover; simmer for 5 minutes more.

PER SERVING: 91 cal., 0 g total fat (0 g sat. fat), 0 mg chol., 231 mg sodium, 21 g carb., 6 g fibre, 7 g pro. Exchanges: 0.5 vegetable, 1 starch, 0.5 very lean meat. Carb choices: 1.5.

Southwest Pasta Salad

Veggies add crunch to the pasta.

SERVINGS 6 ($\frac{1}{2}$ cup each)

CARBS PER SERVING 18 g

- $1\frac{1}{4}$ cups dried multigrain penne pasta (4 ounces)
- $\frac{1}{2}$ cup thin bite-size strips jicama
- $\frac{1}{2}$ cup thin bite-size strips zucchini
- $\frac{1}{2}$ cup chopped green or red sweet pepper
- $\frac{1}{4}$ cup frozen whole kernel corn, thawed and drained
- $\frac{1}{4}$ cup sliced radishes
- 1 recipe Creamy Spinach Pesto (page 80)

Cook pasta according to package directions. Drain pasta and rinse with cold water; drain again. Transfer to a large bowl. Add the vegetables. Add Creamy Spinach Pesto; toss gently to coat. Serve immediately or cover and chill up to 24 hours.

PER SERVING: 130 cal., 5 total g fat (1 g sat. fat), 3 mg chol., 219 mg sodium, 18 g carb., 3 g fibre, 5 g pro. Exchanges: 0.5 vegetable, 1 starch, 1 fat. Carb choices: 1.

Five-Minute Pilaf



Saucy Beans with Tomatoes



Southwest Pasta Salad



One serving
of this casserole
gives you almost
70 percent
of your daily
vitamin C.



Chicken Taco Casserole
recipe on page 76

PER SERVING: 171 cal., 5 g total fat (2 g sat. fat), 68 mg chol., 226 mg sodium, 2 g carb., 0 g fibre, 28 g pro. Exchanges: 4 very lean meat, 1 fat. Carb choices: 0.

QUICK SHRIMP JAMBALAYA

(Pictured on page 77.)

Collard greens—an excellent source of vitamins A, C, and K—gives this Cajun favourite a delicious nutrition boost.

SERVINGS 6 (1 cup each)

CARBS PER SERVING 23 g

- 2 stalks celery, sliced
- 2 teaspoons canola oil
- 2 cloves garlic, minced
- ½ teaspoon Creole or Cajun seasoning
- ⅛ to ¼ teaspoon crushed red pepper
- 4 cups coarsely chopped, trimmed collard greens or kale

½ of a 16-ounce package frozen peppers and onions (2 cups)

- 1 cup cubed cooked ham (5 ounces)
- 1 14.5-ounce can no-salt-added stewed tomatoes, undrained, cut up
- 1 8.8-ounce pouch cooked brown rice
- 8 ounces frozen shrimp, thawed, cooked, peeled, and deveined
- 1 cup frozen cut okra

1. In a 4-quart Dutch oven, cook celery in hot oil over medium heat for 5 minutes, stirring occasionally. Stir in garlic, Creole seasoning, and red pepper. Add collard greens, peppers and onions, ham, and 2 tablespoons of water. Bring to boil; reduce heat. Cover and simmer for 8 minutes, stirring occasionally. Stir in undrained tomatoes, rice, shrimp,

and okra. Cook, uncovered, 5 minutes to heat through, stirring occasionally.
per Serving: 190 cal., 4 g total fat (1 g sat. fat), 84 mg chol., 572 mg sodium, 23 g carb., 4 g fibre, 17 g pro. Exchanges: 2 vegetable, 1 starch, 2 very lean meat. Carb choices: 1.5.

Creamy Spinach Pesto

In a blender or food processor, combine 1¼ cups lightly packed fresh spinach, ½ cup lightly packed fresh cilantro, 2 tablespoons toasted sliced almonds, 2 tablespoons water, 1 tablespoon canola oil or olive oil, ½ teaspoon salt, ⅛ to ¼ teaspoon crushed red pepper, and ⅛ teaspoon black pepper. Cover and blend or process until smooth. Add ¼ cup light sour cream. Cover and blend or process just until combined. Makes ¾ cup. Use in Southwest Pasta Salad, page 79.

net the best seafood

Whether you plan to go fishing or troll a seafood market, find out the smartest ways to eat your catch.

	LOW-CAL	MEDIUM-CAL	HIGH-CAL
SHRIMP	 <p>Boiled shrimp (4 oz.) with lemon 112 cal., 0 g carb., 1 g fat, 0 g fibre</p>	 <p>Steamed shrimp (4 oz.) with 2 tablespoons cocktail sauce 142 cal., 8 g carb., 1 g fat, 1 g fibre</p>	 <p>Fried shrimp (4 oz.) with 2 tablespoons tartar sauce 369 cal., 24 g carb., 22 g fat, 0 g fibre</p> <p>breeding and sauce add calories</p>
FISH	 <p>Grilled halibut (4 oz.) with lemon 169 cal., 0 g carb., 6 g fat, 0 g fibre</p> <p>lemon lends "free" flavour</p>	 <p>Grilled sea bass (4 oz.) with 2 tablespoons low-calorie tartar sauce 232 cal., 2 g carb., 12 g fat, 0 g fibre</p>	 <p>Fried cod (4 oz.) 260 cal., 9 g carb., 15 g fat, 1 g fibre</p>
SEAFOOD SOUP	 <p>Fish cioppino (1 cup) 133 cal., 14 g carb., 3 g fat, 3 g fibre</p>	 <p>Seafood gumbo with rice (1 cup) 194 cal., 23 g carb., 4 g fat, 2 g fibre</p> <p>broth base is low-fat</p>	 <p>New England clam chowder (1 cup) 304 cal., 24 g carb., 13 g fat, 1 g fibre</p>

photos: SCOTT LITTLE; food styling: GREG LUNA



celebrate tea time

Research suggests that this time-tested drink provides an array of health benefits. Join us for a cup of comfort and more.

Studies have shown that regular tea drinkers have fewer incidences of heart disease and stroke and lower cholesterol levels than people who don't drink tea regularly. Black, green, white, and oolong teas contain antioxidants called flavonoids that may offer some significant health benefits.

To gain the most benefits, drink three to five cups a day of regular brewed tea, which contains more flavonoids than decaffeinated tea. To boost your tea intake, treat yourself and your friends to afternoon tea. Enhance your tea experience by passing around some small treats and simple sandwiches. They're great when you're watching carbohydrates—because they're so small, you can sample different kinds and still stay within your carb goals.

by KRISTI THOMAS, R.D.
photographers: SCOTT LITTLE, BLAINE MOATS, and MARK THOMAS
food stylists: DIANNA NOLIN and CHARLES WORTHINGTON
prop stylists: SUE MITCHELL and KAREN JOHNSON



Ruby Red Iced Tea
recipe, page 91



Ginger Lemon Tea
with Jasmine Tea Cookies

Ginger-Lemon Tea

This sipper is fragrant and zesty.

PER SERVING: 3 cal., 0 g fat, 0 mg chol., 9 mg sodium, 1 g carb., 0 g fiber, 0 g pro. Exchanges: free.

- 6 cups water
- 1 2-inch piece fresh ginger, thinly sliced
- 8 lemon peel strips (2½×1 inches each)*
- 6 green tea bags

1. In a large saucepan, stir together the water, ginger, and lemon peel strips. Bring to boiling; reduce heat. Simmer, uncovered, for 10 minutes. Using a slotted spoon, remove ginger and lemon peel strips; discard.

2. Place tea bags in a teapot; immediately add the simmering water mixture. Cover and let steep according to tea package

directions (1 to 3 minutes). Remove tea bags, squeezing gently; discard. Serve immediately in heatproof glass or ceramic mugs or cups. Makes 5 to 6 (about 8-ounce) servings.

***Test Kitchen Tip:** Use a vegetable peeler to cut lemon peel strips. To avoid a bitter flavor, use a sharp knife to scrape off any white pith that remains on the peel.

Jasmine Tea Cookies

Jasmine tea is a type of green tea scented with jasmine flowers.

PER COOKIE: 59 cal., 2.5 g total fat (1.5 g sat. fat), 7 mg chol., 38 mg sodium, 8 g carb., 0 g fiber, 1 g pro. Exchanges: 0.5 carb., 0.5 fat. Carb choices: 0.5.

- ½ cup cake flour
- ½ cup white whole wheat flour
- 1 teaspoon loose jasmine tea, crushed
- ¼ cup butter, softened
- 2 ounces reduced-fat cream cheese (Neufchâtel), softened
- ½ cup granulated sugar*
- ⅛ teaspoon salt
- 1 egg white
- ½ teaspoon vanilla
- Powdered sugar (optional)

1. In a small bowl, stir together cake flour, white whole wheat flour, and jasmine tea; set aside.

2. In a medium bowl, combine butter and cream cheese. Beat with an electric mixer on medium to high speed for 30 seconds. Add granulated sugar and salt. Beat until combined, scraping side of bowl occasionally. Beat in egg white and vanilla until combined. Beat in as much of the flour mixture as you can with the mixer. Use a wooden spoon to stir in remaining flour mixture. Wrap and chill dough about 4 hours.

3. Preheat oven to 375°F. Shape dough into 1-inch balls; place 1 inch apart on ungreased cookie sheets.

4. Bake for 10 to 12 minutes or just until edges are lightly browned. Cool on cookie sheets for 1 minute. Transfer cookies to wire racks; cool. If desired, sprinkle with powdered sugar. Makes about 24 cookies.

***Test Kitchen Tip:** We do not recommend using sugar substitute in this recipe.

To Store: Layer cookies between waxed paper in an airtight container. Store at room temperature for up to 1 day or freeze for up to 1 month.



Jasmine tea available in market

(benefits of tea)

Drinking tea is a good idea because you may gain the following health benefits:

- ❖ **Lower blood pressure.** Green and oolong teas may help reduce the risk of hypertension.
- ❖ **Protection against heart disease and plaque forming in the arteries.** Tea drinkers who consume three or more servings of black tea each day have a lower risk of heart disease and stroke.
- ❖ **Lower cholesterol levels.** Black tea may help to lower LDL (bad) cholesterol.
- ❖ **Weight maintenance.** Oolong tea appears to impair the body's ability to absorb fat and, therefore, calories. Catechins found in tea may help reduce body fat.
- ❖ **Protection against organ cancers.** Tea appears to limit the progression of cancer. Green and black teas may help slow the spread of prostate cancer. Green and white teas may help fight colon cancer. Green tea has been found to reduce the risk of breast cancer and prevent recurrences.
- ❖ **Protection against skin cancer.** Hot tea has been shown to lower the risk of some skin cancers.
- ❖ **Protection against Alzheimer's disease.** Green tea may help delay or prevent Alzheimer's disease and help keep your brain sharp.
- ❖ **Improved immunity.** Tea appears to boost the body's defenses and immunity.



Chai

Chai

This soothing sipper is great as a midafternoon pick-me-up.

PER SERVING: 66 cal., 0 g fat, 3 mg chol., 70 mg sodium, 10 g carb., 0 g fiber, 6 g pro. Exchanges: 0.5 milk. Carb choices: 0.5.

PER SERVING WITH SUBSTITUTE: same as above, except 60 cal., 9 g carb.

- $\frac{1}{2}$ cup water
- 1 black tea bag (such as orange pekoe, English breakfast, Lapsang Souchong, or Darjeeling)
- 1 3-inch piece stick cinnamon
- 2 cups fat-free milk
- 1 teaspoon vanilla
- $\frac{1}{8}$ teaspoon ground ginger
- $\frac{1}{8}$ teaspoon ground cardamom
- 1 teaspoon sugar or sugar substitute* equivalent to 1 teaspoon sugar
- Ground cinnamon (optional)
- Stick cinnamon (optional)

1. In a small saucepan, combine the water, tea bag, and the 3-inch piece stick cinnamon. Bring to boiling; remove from heat. Cover and let stand for 5 minutes. Discard tea bag and cinnamon stick.

2. Stir the milk, vanilla, ginger, and cardamom into the tea. Cook and stir over medium heat just until mixture is heated through (do not boil). Remove from heat and stir in sugar until dissolved. To serve, pour hot mixture into warm mugs. If desired, sprinkle with ground cinnamon and serve with additional stick cinnamon. Makes 3 (6-ounce) servings.

Chocolate Chai: Prepare as directed, except whisk 1 tablespoon unsweetened Dutch-process cocoa powder in with the milk and spices and use 1 tablespoon honey or sugar substitute* equivalent to

1 tablespoon sugar in place of the sugar. Heat through. If desired, top with 3 tablespoons frozen light whipped dessert topping, thawed. If desired, sprinkle each serving with ground cinnamon.

Chocolate Chai nutrition facts per serving: 89 cal., 0 g fat, 3 mg chol., 70 mg sodium, 15 g carb., 0 g fiber, 6 g pro. Exchanges: 0.5 milk, 0.5 carb. Carb choices: 1.

Chocolate Chai per serving with substitute: same as above, except 68 cal., 10 g carb. Exchanges: 0.5 milk. Carb choices: 0.5.

***Sugar Substitutes:** Choose from Splenda granular or Sweet'N Low bulk or packets. Follow package directions to use product amount equivalent to 1 teaspoon or 1 tablespoon sugar.

Earl Grey Custards
recipe, page 89



Dip a spoon into creamy custard flavored with Earl Grey tea.

Serve dainty sandwiches with fragrant, fruit-sweetened tea.

Spiced Pear Tea

You'll enjoy the rich fruity flavors of pear and orange in every sip of this warming tea. If you can afford the carbohydrates, stir in the honey to take away any bitterness from the orange peel.

PER SERVING: 57 cal., 0 g fat, 0 mg chol., 6 mg sodium, 15 g carb., 1 g fiber, 0 g pro.

EXCHANGES: 1 carb. Carb choices: 1.

- 1 orange
- 3 cups water
- 2 11.3- to 12-ounce cans pear nectar
- 1 tablespoon honey (optional)
- 1 4-inch piece stick cinnamon
- 1 teaspoon whole cloves
- 6 tea bags

Small orange slices, halved (optional)

Stick cinnamon (optional)

1. Using a vegetable peeler, remove 3 wide strips of peel from the orange; set peel aside. Juice the orange into a large saucepan.
2. Add the water, pear nectar, and honey (if using) to orange juice in saucepan. For spice bag: Place the 4-inch piece stick cinnamon, the cloves, and orange peel strips in the center of a 6-inch square of double-thickness 100-percent-cotton cheesecloth. Bring corners together and tie with 100-percent-cotton kitchen string. Add spice bag to pear nectar mixture.
3. Bring mixture to boiling; reduce heat. Cover and simmer for 10 minutes.

Remove from heat. Add tea bags; cover and let stand for 5 minutes. Remove tea bags and spice bag; discard. Serve in warm mugs. If desired, float orange slices on top of individual servings and serve with additional stick cinnamon. Makes 8 (about 6-ounce) servings.

Cucumber and Dill-Sour Cream on English Muffins

If you like, you can season the sour cream with another snipped fresh herb instead of the dill. Basil, thyme, or cilantro is a good choice.

PER OPEN-FACE SANDWICH: 81 cal., 2 g total fat (1 g sat. fat), 4 mg chol., 207 mg sodium, 14 g carb., 1 g fiber, 3 g pro. Exchanges: 1 starch. Carb choices: 1.

- $\frac{1}{4}$ cup light dairy sour cream
- 1 teaspoon snipped fresh dill or $\frac{1}{4}$ teaspoon dried dill
- 2 whole wheat English muffins, split and toasted
- Thin slices English cucumber
- $\frac{1}{8}$ teaspoon salt
- Fresh dill sprigs (optional)

1. In a small bowl, stir together sour cream and the snipped or dried dill. If desired, cut 2 $\frac{1}{2}$ -inch rounds from the English muffin halves; discard scraps.

2. Spread the sour cream mixture on the cut sides of the toasted English muffin halves. Arrange cucumber on sour cream mixture. If desired, garnish with fresh dill sprigs. Makes 4 open-face sandwiches.



Spiced Pear Tea



Cucumber and Dill-Sour Cream on English Muffin

Earl Grey Custards

Earl Grey tea, named after a former prime minister of England, is flavored with a bitter orange, the bergamot.

Pictured on page 87.

per serving: 89 cal., 0 g fat, 2 mg chol., 96 mg sodium, 16 g carb., 0 g fiber, 6 g pro. Exchanges: 1 carb. Carb choices: 1.

Nonstick cooking spray

2¼ cups fat-free milk

2 Earl Grey tea bags

¾ cup refrigerated or frozen egg product, thawed, or 3 eggs, lightly beaten

⅓ cup sugar*

Fresh spearmint sprigs with flowers (optional)

1. Preheat oven to 325°F. Lightly coat six 6-ounce soufflé dishes or 6-ounce custard cups with nonstick cooking spray. Place dishes or cups in a 3-quart rectangular baking dish; set aside.

2. In a heavy medium saucepan, heat milk over medium-low heat just until

milk begins to bubble around edge. Remove from heat; add tea bags. Cover; let steep for 4 minutes. Remove tea bags from milk, pressing out liquid from the bags; discard tea bags.

3. In a large bowl, combine eggs and sugar. Beat with a wire whisk or rotary beater just until combined. Slowly whisk the milk mixture into the egg mixture.

4. Divide milk-egg mixture among the prepared dishes or cups. Place baking dish on oven rack. Pour enough boiling water into the baking dish to reach halfway up the sides of the dishes or cups.

5. Bake for 35 to 45 minutes or until centers are nearly set (centers may shake slightly). Remove dishes from water; cool on a wire rack for 1 hour. Cover and chill for 1 to 24 hours. If desired, unmold custards by loosening edges with a thin metal spatula; invert a dessert plate over each dish and turn plate and dish over together. Remove dishes. If desired, garnish with spearmint. Makes 6 (⅓-cup) servings.

***Test Kitchen Tip:** We do not recommend using sugar substitute for this recipe.

(flavourful additions)

Whether you prefer your tea with added milk, lemon, sweetener, or another enhancement is a matter of taste. Try the tea first without any enhancement, then add the following as you wish:

- ✱ **Milk:** Milk reacts chemically with tea and softens the astringency of black tea in particular. Cream shouldn't be used as a substitute for milk—it masks the tea's flavor. Avoid combining milk with lemon because acid curdles the milk.
- ✱ **Lemon:** Lemon brightens the flavor of black tea and enhances scented teas—without added calories. If you like lemon in your tea, add a slice to the empty cup and pour in the hot tea.
- ✱ **Sweetener:** Choose a low-calorie sweetener that's heat-stable, such as Equal Sugar Lite, Splenda Sugar Blend for Baking, or Sweet 'N Low. Remember to count the carbs if you add a bit of sugar or honey.



Citrus Angel Tea Cakes

Ruby Red Iced Tea

White tea is slightly sweeter than green or black tea, but any of the three work for this drink.

Pictured on the cover and page 83.

PER SERVING: 3 cal., 0 g fat, 0 mg chol., 2 mg sodium, 0 g carb., 0 g fiber, 0 g pro.

Exchanges: free.

- 4 sprigs fresh rosemary
- 12½ cups water
- 12 white tea bags
- 8 Red Zinger herb tea bags
- Ice cubes
- Fresh rosemary sprigs (optional)

1. Place the 4 sprigs rosemary on a cutting board; lightly crush with the back of a spoon. Set aside.

2. In a Dutch oven, bring the water to boiling; remove from heat. Add tea bags and the lightly crushed rosemary sprigs. Cover and let steep for 4 minutes. Using a slotted spoon or strainer, remove tea bags and rosemary; carefully press tea bags to get out as much liquid as possible. Cool slightly. Transfer to pitchers. Cover and chill for 4 to 24 hours.

3. Serve over ice cubes. If desired, serve with additional rosemary sprigs. Makes 12 (about 8-ounce) servings.

Citrus Angel Tea Cakes

Enjoy three petite cakes and use only one carb exchange per serving!

PER SERVING: 89 cal., 1.5 g total fat (1 g sat. fat), 4.5 mg chol., 30 mg sodium, 17 g carb., 0 g fiber, 2 g pro. Exchanges: 1 carb. Carb choices: 1.

PER SERVING WITH SUBSTITUTE: same as above, except 77 cal., 13 g carb.

- 1/3 cup egg whites (2 to 3 large)
- 1/4 cup sifted cake flour or sifted all-purpose flour
- 2 tablespoons powdered sugar
- 1/4 teaspoon cream of tartar
- 1/8 teaspoon vanilla
- 3 tablespoons granulated sugar or sugar substitute blend* equivalent to 3 tablespoons sugar

Even though called cakes, they are old fashioned baked cookies

- 1 teaspoon finely shredded lemon peel

- 1 recipe Lemon Cream Topping or Raspberry Cream Topping
- Small fresh raspberries, chopped fresh strawberries, quartered fresh strawberries, shredded lemon peel, and/or small sliced lemon pieces (optional)
- Powdered sugar (optional)

1. In a medium bowl, let egg whites stand at room temperature for 30 minutes. Meanwhile, sift flour and 2 tablespoons powdered sugar together three times; set aside.

2. Preheat oven to 350°F. Add cream of tartar and vanilla to egg whites. Beat with an electric mixer on medium speed until soft peaks form (tips curl). Gradually add granulated sugar, about 1 tablespoon at a time, beating until stiff peaks form (tips stand straight).

3. Sift about one-third of the flour mixture over beaten egg whites. Sprinkle with 1 teaspoon lemon peel; fold in gently. Sift half of the remaining flour mixture over egg white mixture; fold in gently. Repeat with remaining flour mixture. Spoon into 18 ungreased 13/4-inch muffin cups, filling cups to the top with batter.

4. Bake about 10 minutes or until tops are lightly browned and spring back when lightly touched. Immediately invert muffin pan onto a wire rack; let stand until completely cool. Loosen cakes from

sides of pan with a thin metal spatula; remove cakes.

5. To serve, use a serrated knife to split cakes in half horizontally. Place half of the cake pieces on a serving platter; spoon or pipe half of the Lemon Cream Topping or Raspberry Cream Topping on the cake pieces; top with remaining cake pieces and spoon or pipe on remaining topping. Or leave cakes whole and spoon or pipe desired topping on top of the cakes.

6. If desired, top with a raspberry, a few chopped strawberries, a strawberry quarter, additional lemon peel, or a piece of sliced lemon. Sprinkle lightly with additional powdered sugar, if desired. Makes 6 (3-tea cake) servings.

Lemon Cream Topping: In a small bowl, whisk together 1/4 cup light dairy sour cream, 2 teaspoons lemon curd, and 1/4 teaspoon finely shredded lemon peel until well combined. Fold in 1/3 cup frozen light whipped dessert topping, thawed. Makes about 1/2 cup.

Raspberry Cream Topping: In a small bowl, whisk together 1/3 cup light dairy sour cream and 1 tablespoon low-sugar raspberry or strawberry preserves (snipping any large pieces of fruit). Fold in 2 tablespoons frozen light whipped dessert topping, thawed. Makes about 1/2 cup.

***Sugar Substitutes:** Choose Splenda Sugar Blend for Baking. Follow the package directions to use amount equivalent to 3 tablespoons sugar.

Tarot forecast for March-April 2015

ARIES

Card of the Period:
Knight of Wands

This is going to be an emotional period filled with awareness and sensitivity because of planetary energy. This is the time to implement awareness and sensitivity in your life. Once you are aware that you need to let someone or something go during this period, then you must execute the necessary closure. If you believe in spirituality, it's time for you to nurture it.



TAURUS

Card of the Period:
Seven of Coins

The nature of your sleep determines the effectiveness of your healthy diet. The amount of rest speaks about the quality of your finely tuned physique. Eating habits have great impact on your potential to relax and workout. Take out some time to acknowledge how your body digests food you eat. Realize that leafy greens are easy to digest while red meat is not.



GEMINI

Card of the Period:
Two of Cups

You would be amazed by the sudden changes that you are to encounter in your world, for which you must maintain a perfect balance to overcome any shock. Try getting engaged in some soothing activities, liking practising meditation, reading positive material. Indulge in walking, stretching and yoga that offer you peace of mind.



CANCER

Card of the Period:
Five of Swords

You are the right person to visualise the bigger picture with greater clarity. There is a chance for you to enjoy social gatherings but make sure to give ample attention to your feelings Irrespective of all your commitments. Make sure that you have routine exercise, a well balanced diet, sufficient rest and complete relaxation.



LEO

Card of the Period:
King of Coins

Are you looking for an auspicious moment to take care of your health? If so, this is the right time to start up your plan. The initial step is to consume plenty of water every day and take necessary steps to double the quantity. Most people may face problems of dehydration without knowing the actual cause. Don't be one of them.



VIRGO

Card of the Period:
The Empress

The energy for a healthy life comes from pure love. Offer some to your body too. If you give sufficient exercise to your body, you may deliver more love towards other people. Try to plan your meal a day before. Be cautious about your meals for the whole day as you are the one who is going to put your body in the lifeline of adventures.



LIBRA

Card of the Period:
Six of Swords

You will not be the only person to show obstacles as a cause to break up. But when you are exposed to complete pressure, it's up to you to take ample time to put things back on track. You may enjoy the pressure in life but at the same time you possess the much needed creativity to bring back the sparkle in your life. You can also consider treating yourself with a special massage.



SCORPIO

Card of the Period:
Three of Cups

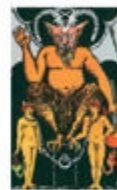
You can take up real pride in maintaining perfect physique. Your good health is the result of all your efforts in maintaining fitness, eating balanced diet and exercising regularly. This is the time for you to take a novel step by giving ample time to your health. Spending sufficient time to keep up your health will give you good returns than time spent for others.



SAGITTARIUS

Card of the Period:
The Devil

You will get obsessed with things that are not very important. It is good to stand firm on healthy habits without any distraction. There is a time when everything may go out of control. Remember one thing that no one is completely perfect and nobody expects that from you too. Your goal is not to achieve perfection. If you can't help out with your obsession, take rest for that day and attempt the next day.



CAPRICORN

Card of the Period:
Five of Cups



Your early days were fairly good. You need to establish balance in your energy with the help of strict diet. You are free to eat all foods of your choice but not in excess. Maintain regular workout coupled with sufficient sleep on a regular basis. It will be a great experience to sleep on your bed with a small lemon verbena under your pillow.

AQUARIUS

Card of the Period:
Four of Coins



If you are bored with your regular schedule of eating plenty of salads and routine exercises, it's time for you to take a break with a lavish dinner. Take your time to decide which diet suits you more and which ones you prefer. No better chance to think like this and find out an answer. Listen to your impulses and be a better judge.

PISCES

Card of the Period:
Nine of Cups



Wait and watch your temptations to take over flight. This is the time for you to practice good health. Health depends largely on sleep and a healthy diet. Try to give ample time to your sleep as it's directly proportional to your attitude. Great attitude refers to a toast of whole grains, fresh fruits, water and a healthy breakfast.

THREE TRUTHS OF WELL BEING

What does it take to live in well-being? To be in an abiding state of health, peace, love?

In his first-ever self-help book, Sadhguru, a profound mystic of our times, offers his characteristically pragmatic wisdom for a life of joy and fulfilment. Don't route your joy through heaven, he says. Access happiness for yourself—right here, right now.

Starting with three basic dimensions of the self—Body, Mind and Energy—Sadhguru introduces us to simple techniques to realign and transform them into a life of sparkling aliveness. From the ideal approach to food and sleep to the profound secrets of the human spine, from the role of sex and desire to the deepest meaning of love and morality, from the significance of physical postures and psychological attitudes to the notion of authentic spiritual illumination—this book guides us on all this and more.

The book, peppered with personal anecdotes and Sadhguru's inimitable wit, has many practical tips and do-it-yourself exercises.

Accompanied by a DVD with instructions for Isha Kriya, it is a must-have for anyone committed to becoming fully human.

About the Author

Yogi, mystic and visionary, Sadhguru is a spiritual master with a difference. An arresting blend of profundity and pragmatism, his life and work serve as a reminder that yoga is not an esoteric discipline from an outdated past, but a contemporary science, vitally relevant to our times. Sadhguru's talks have earned him the reputation of a speaker and opinion-maker of international renown. He has been a delegate to the United Nations Millennium World Peace Summit, a special invitee to the Australian Leadership Retreat, Tallberg Forum, as well as a regular speaker at the World Economic Forum in Davos.

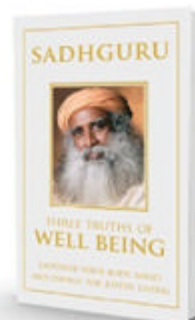
Book Name: Three Truths of Well Being: Empower Your Body, Mind and Energy for Joyful Living

Author: Sadhguru Jaggi Vasudev

Publisher: Penguin India

No. of pages: 248

Price: ₹499



? how can we help you thrive with diabetes?

Please take a few minutes to tell us what you think about this magazine. Then fold the survey, place it in an envelope, and mail (address on opposite side). Your comments will help us meet your needs as you live with diabetes.

NAME _____

ADDRESS _____

CITY _____

STATE _____

PIN _____

E-MAIL _____

1 Where did you get this issue of *Diabetic Living* magazine?

- ☐ At home
- ☐ A store
- ☐ Friend or family member
- ☐ Doctor's office or clinic
- ☐ Other _____

2 Why are you interested in reading about diabetes?

Please check all that apply.

- ☐ I have type 2 diabetes
For how long? _____
- ☐ I have type 1 diabetes
For how long? _____
- ☐ I have pre-diabetes
(elevated blood glucose)
- ☐ My child has diabetes
- ☐ I am the caregiver for an adult with diabetes
- ☐ Diabetes runs in my family
- ☐ I am a medical professional

3 Where else do you find diabetes education/support?

Please check all that apply.

- ☐ Diabetes education class(es)
- ☐ Registered dietitian
- ☐ Family doctor
- ☐ Endocrinologist
- ☐ In-person support group
- ☐ Online support group/community
- ☐ Magazines/books
- ☐ Videos/DVDs
- ☐ Online
- ☐ Other _____

4 What information do you feel has been missing from your diabetes education?

5 Where do you access the Internet? *Please check all that apply.*

- ☐ At home
- ☐ At work
- ☐ Through a mobile device
- ☐ At the public library
- ☐ I do not have Internet access
(please go to question 9).

6 How often do you look for diabetes or other health information online?

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Less than once a month
- ☐ I have never looked online for diabetes information (please go to question 9).

7 Please list the top three diabetes or health websites you visit.

1. _____
2. _____
3. _____

8

	HIGH INTEREST	MODERATE INTEREST	LOW/NO INTEREST
Diabetes medical news and research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Everyday recipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30-minute (or less) recipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low-carb recipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low-sodium recipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special-occasion recipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holiday recipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recipes for two	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dessert recipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What/how much to eat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting started (newly diagnosed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medication and treatments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diabetes procedures and tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weight loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing blood glucose and/or A1C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pain management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How to avoid complications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mentally coping with diabetes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diabetes products and services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspiration from people with diabetes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other			

[illegible]

☒ **Yes**, the editors of *Diabetic Living* magazine may contact me for more information.

9

	AGREE COMPLETELY	AGREE SOMEWHAT	NEITHER AGREE NOR DISAGREE	DISAGREE SOMEWHAT	DISAGREE COMPLETELY
The magazine is well-organised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Articles do not give me enough information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Articles are colorful and attractive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The text size is too small to read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The text size is easy to see and to read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stories inform and educate me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stories inspire me to take self-care actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stories encourage me to talk to my doctor or health care provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can get the same information elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The magazine keeps me up-to-date on the newest information about diabetes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The articles are difficult to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The stories are realistic for someone with diabetes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The magazine shows/describes people I can relate to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you!
We appreciate
your feedback.

Fold and mail
this survey in
an envelope
addressed to:

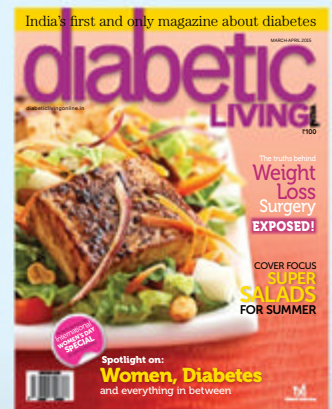
Diabetic Living Survey
MaXposure Media Group (I) Pvt. Ltd.
Unit No. G-0-A (Ground Floor),
Mira Corporate Suites, Plot No 1 & 2,
Ishwar Nagar, Mathura Road,
New Delhi-110065

diabetic LIVING^{INDIA}

INDIA'S FIRST AND ONLY MAGAZINE ABOUT DIABETES

for the latest medical breakthroughs, health tips and
amazing recipes, you can now...

JOIN US
LIKE US
FOLLOW US



Log on here for more details:

facebook

www.facebook.com/diabeticlivingindia

twitter

www.twitter.com/DLIndia



MaXposure Media Group

My health... ...my responsibility!

**Common Allergy, Headache, Fever, Cold, Mental Stress,
Anxiety etc. have become common part of our
day-to-day life**

Why so?

**Highly compromised environment, contaminated and junk food
have severely weakened our natural free radical defense system
resulting in low immune response and our body is not able
to fight with common diseases**

ACTION

We need ANTIOXIDANTS



**Derived
from unroasted
coffee fruit**

ADD GRECOBE

(Standardized to Dietary Chlorogenic Acids NLT 45%)

**An ultimate antioxidant
to your diet !**

Benefits of GRECOBE

- Preserves natural antioxidants in the body
- Neutralizes Carcinogenic compounds
- Decreases the production of free radicals
- Burns both sugar and fat & slows the release of sugar into blood stream

For enquiries or order, please contact:

+91 9915002390, +91 7814122220 or
email: grecobe@fenfuro.com
www.fenfuro.com

Also available at

 **RELIGARE**
wellness
The Complete Health Store



Coffee and you



Coffee in a measure
is a treasure.

We all drink coffee for pleasure.

An inspirational drink that has become aspirational
and a lifestyle beverage.....

Coffee can keep you alert and therefore helps you
perform better and reduces stress.

